

Removal and Installation

1. Remove the engine cover (A).



2. Installation is reverse order of removal

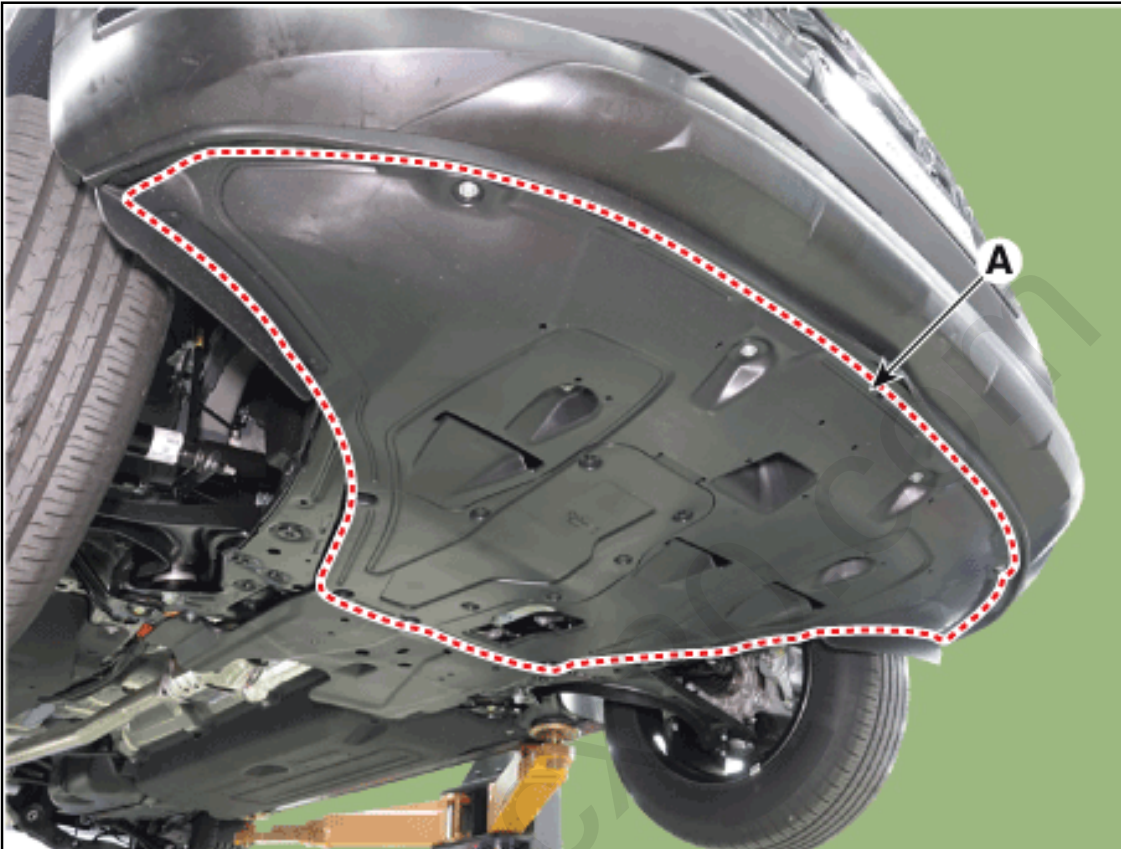
Removal and Installation

Front Under Cover

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

Tightening torque :

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



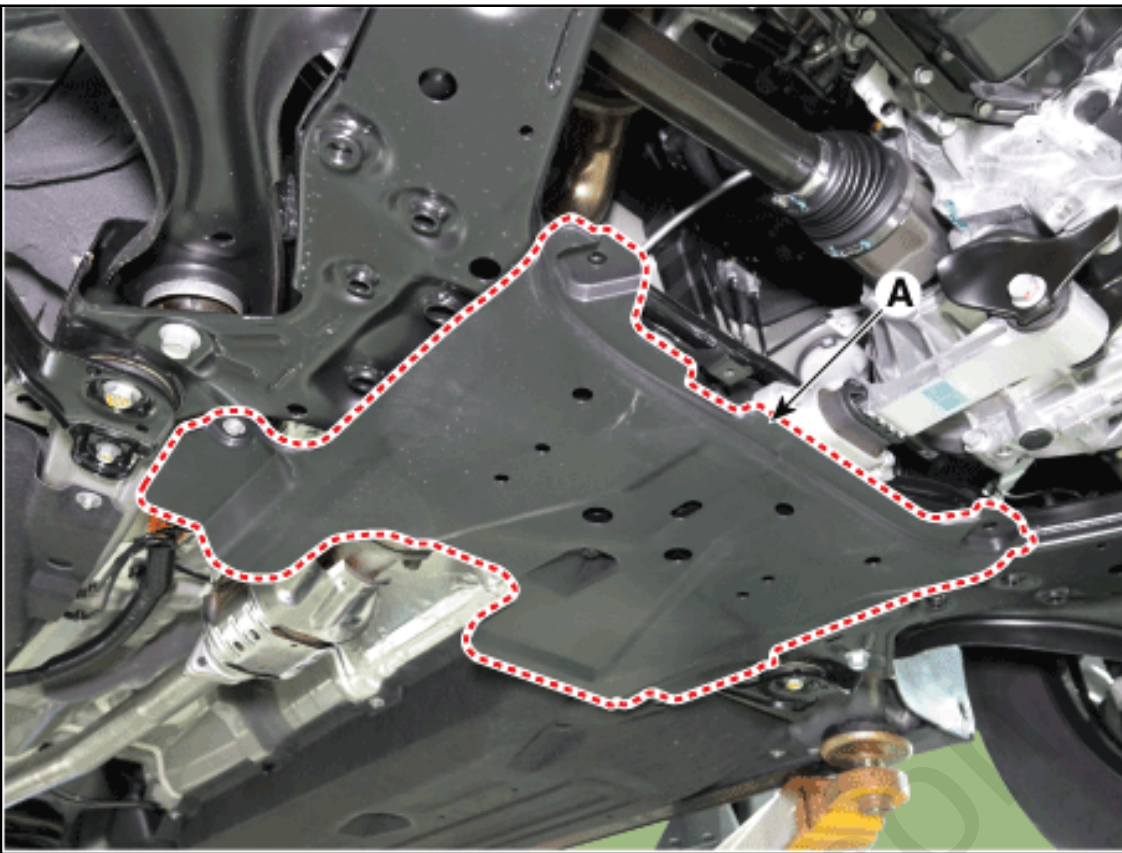
2. Installation is reverse order of removal.

Rear Under Cover

1. Remove the engine room rear under cover (A).

Tightening torque :

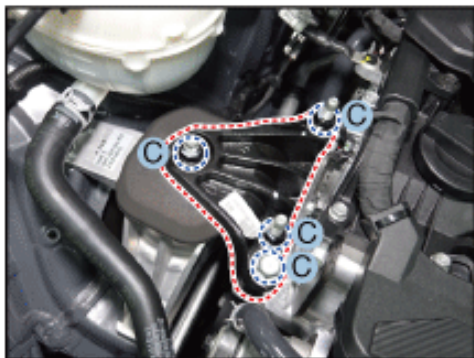
7.8 - 11.8 N.m (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)



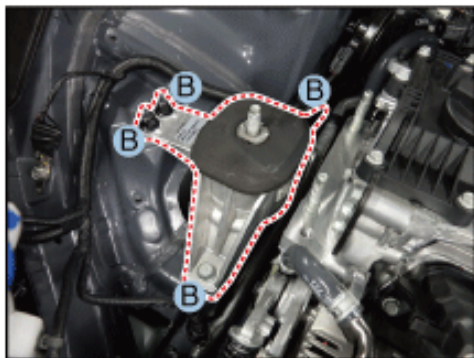
2. Installation is reverse order of removal.

Components

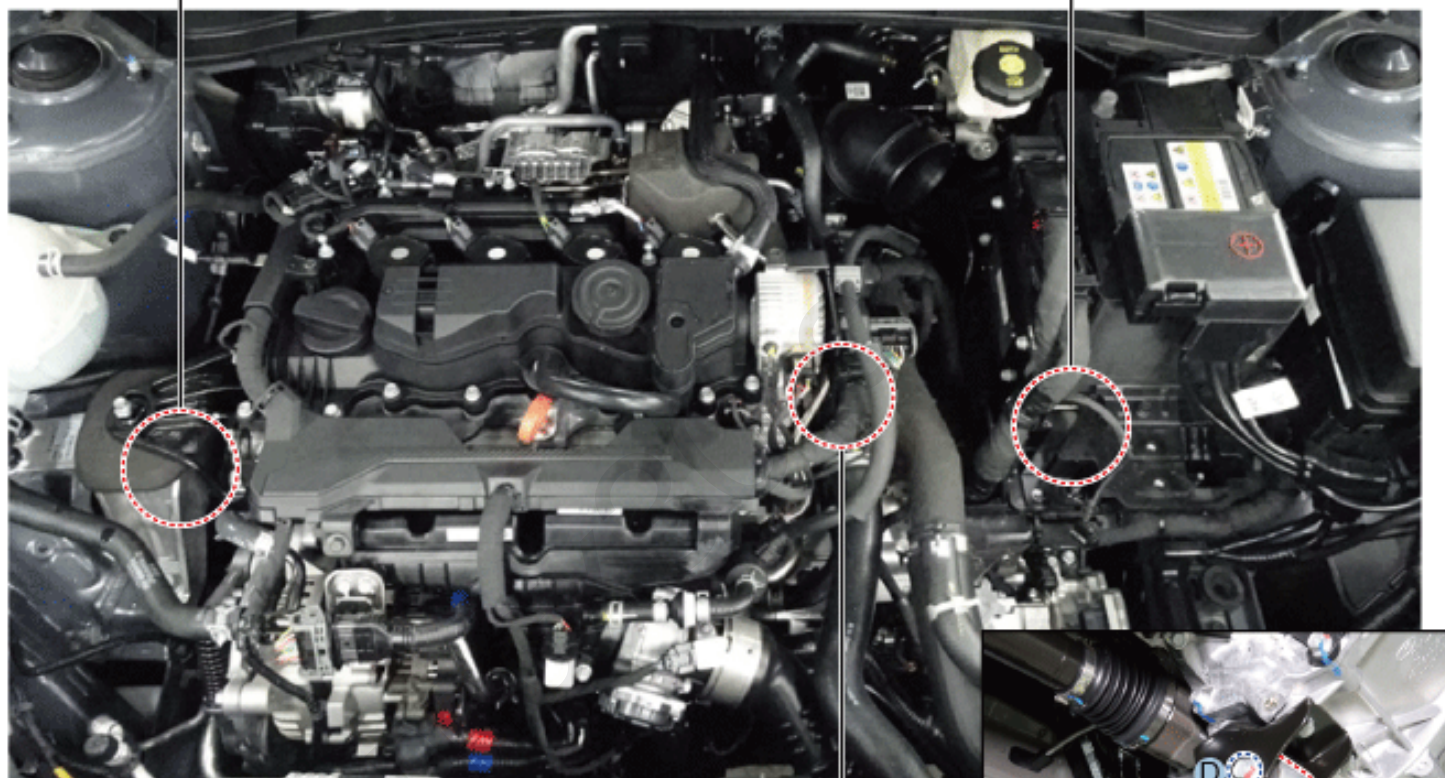
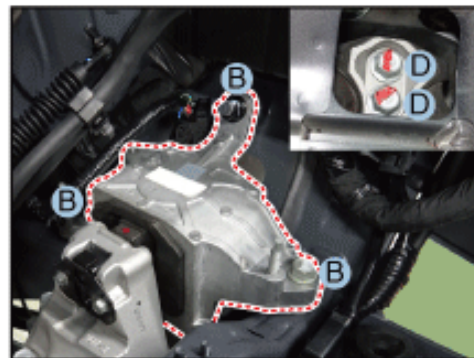
[1]



[2]

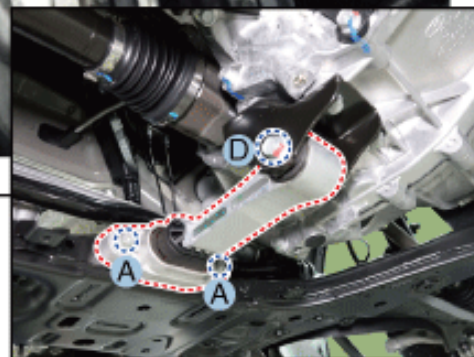


[3]



Tightening torque : N.m (kgf.m, lb-ft)
A : 49.0 - 63.7 (5.0 - 6.5, 36.2 - 47.0)
B : 63.7 - 83.4 (6.5 - 8.5, 47.0 - 61.5)
C : 88.3 - 107.9 (9.0 - 11.0, 65.1 - 79.6)
D : 107.9 - 127.5 (11.0 - 13.0, 79.6 - 94.0)

[4]



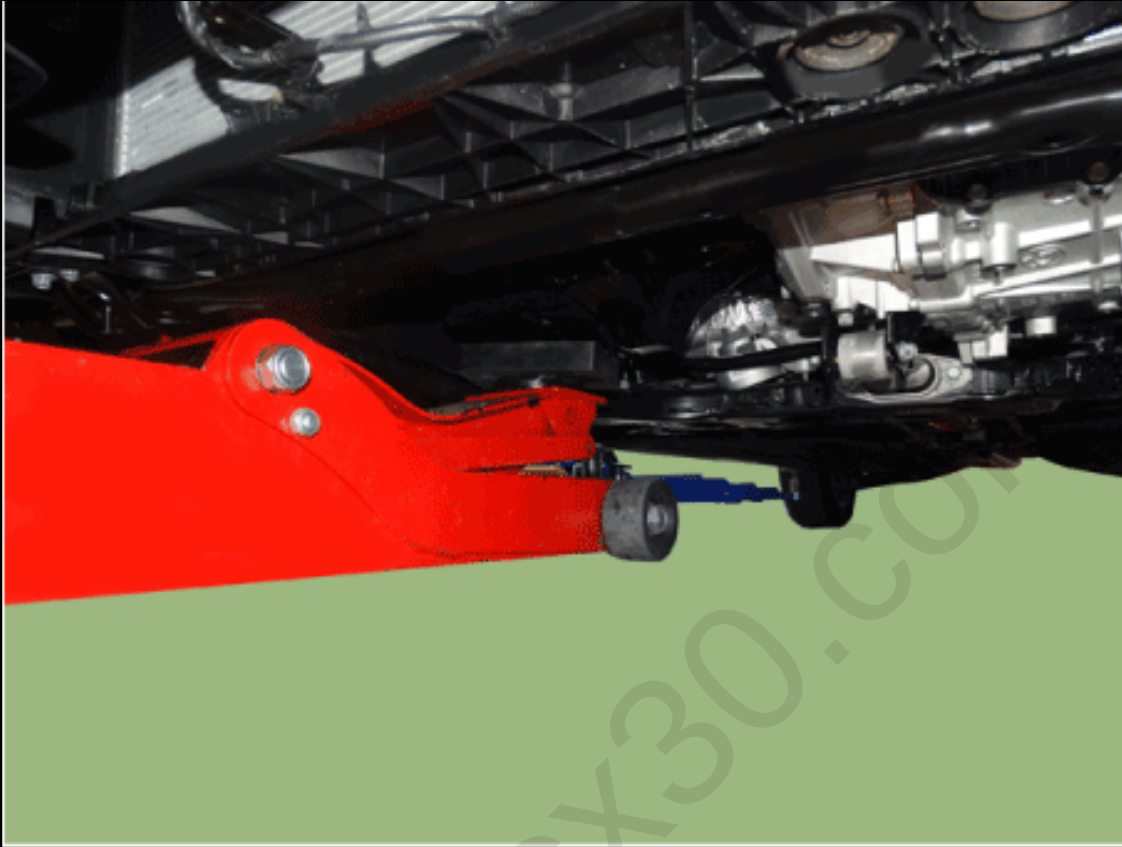
1. Engine mounting support bracket
 2. Engine mounting bracket

3. Transaxle mounting bracket
 4. Roll road bracket

Removal and Installation

Engine mounting bracket

1. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
2. Install the jack to the edge of oil pan.

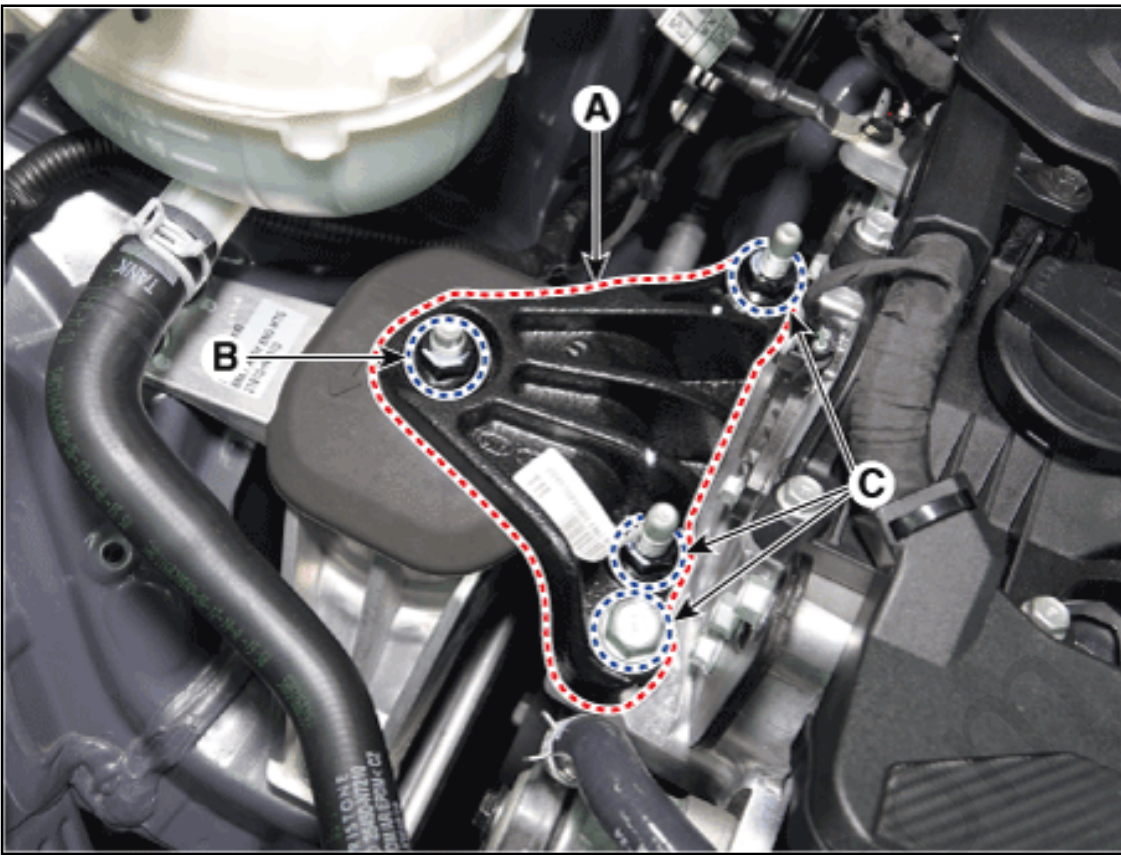


- Insert the rubber block between jack and oil pan.

3. Remove the engine mounting support bracket (A).

Tightening torque

Bolt and Nut (B, C) : 88.3 - 107.9 N.m (9.0 - 11.0 kgf.m, 65.1 - 79.6 lb-ft)



4. Loosen the coolant reservoir tank (A) mounting bolts to obtain engine mounting working space.

Tightening torque :

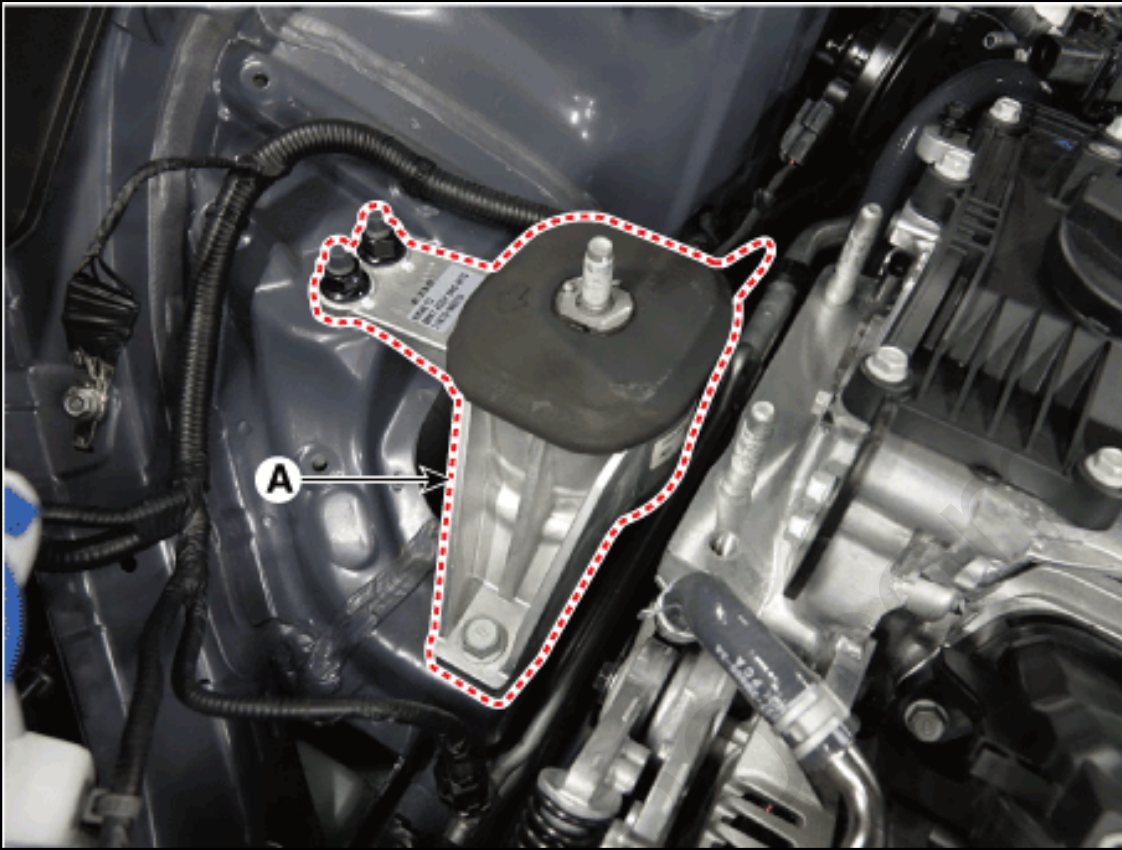
7.8 - 11.8 N.m (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)



5. Remove the engine mounting bracket (A).

Tightening torque :

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

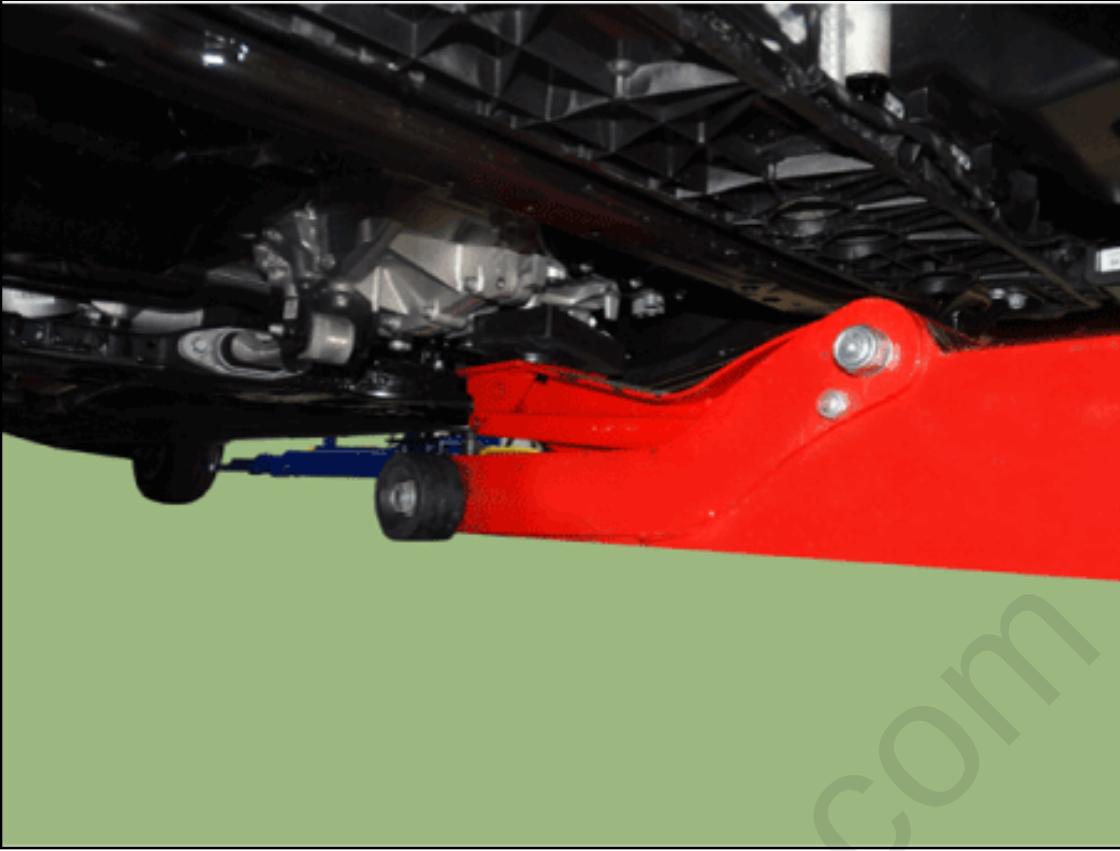


6. Installation is in the reverse order of removal.

Transaxle mounting bracket

1. Disconnect the negative battery terminal.
2. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
3. Remove the air duct and air cleaner assembly.
(Refer to Intake and Exhaust System - "Air Cleaner")
4. Remove the battery and battery tray.
(Refer to Engine Electrical System - "Battery")

5. Place the jack under the transaxle.



- Insert the rubber block between jack and transaxle.

6. Remove the LH front wheel guard.
(Refer to Body (Interior and Exterior) - "Front Wheel Guard")
7. Loosen the transaxle support bracket mounting bolts (A).

Tightening torque :

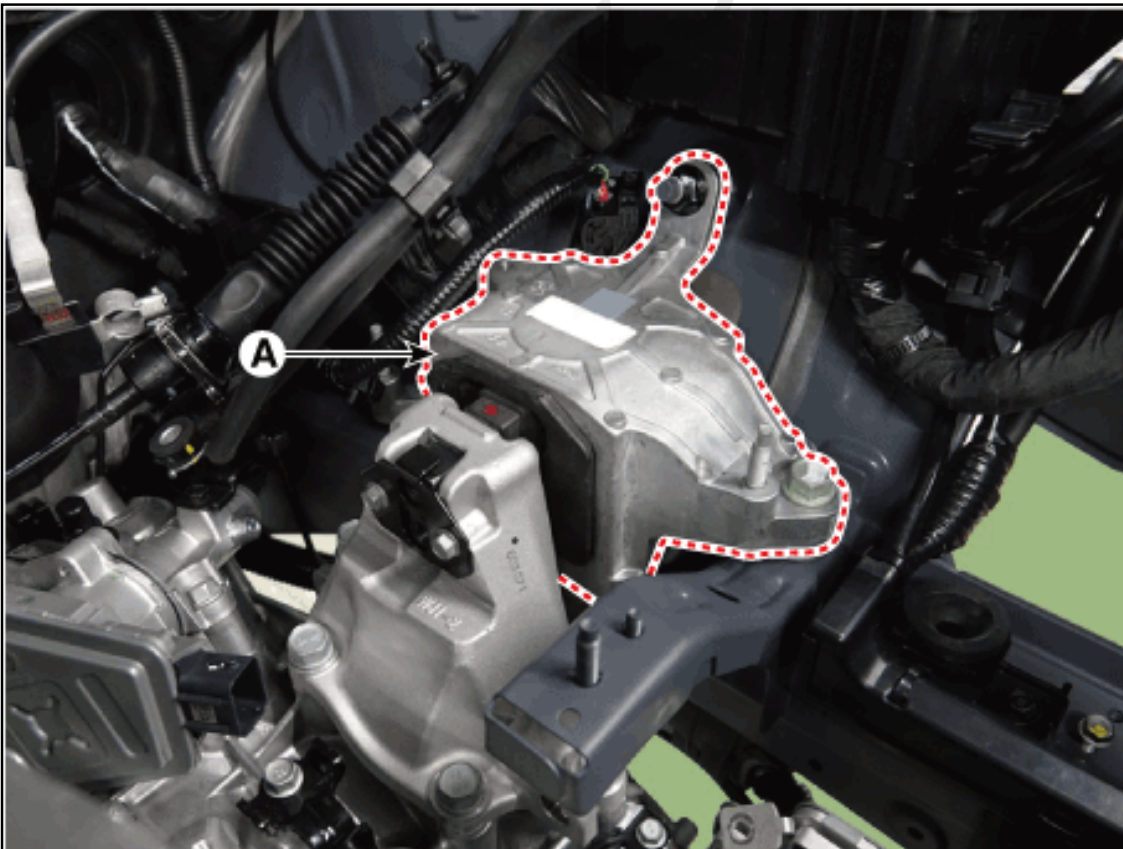
107.9 - 127.5 N.m (11.0 - 13.0 kgf.m, 79.6 - 94.0 lb-ft)



8. Remove the transaxle mounting bracket (A).

Tightening torque :

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



9. Installation is in the reverse order of removal.

Roll rod bracket

1. Remove the engine room under cover.

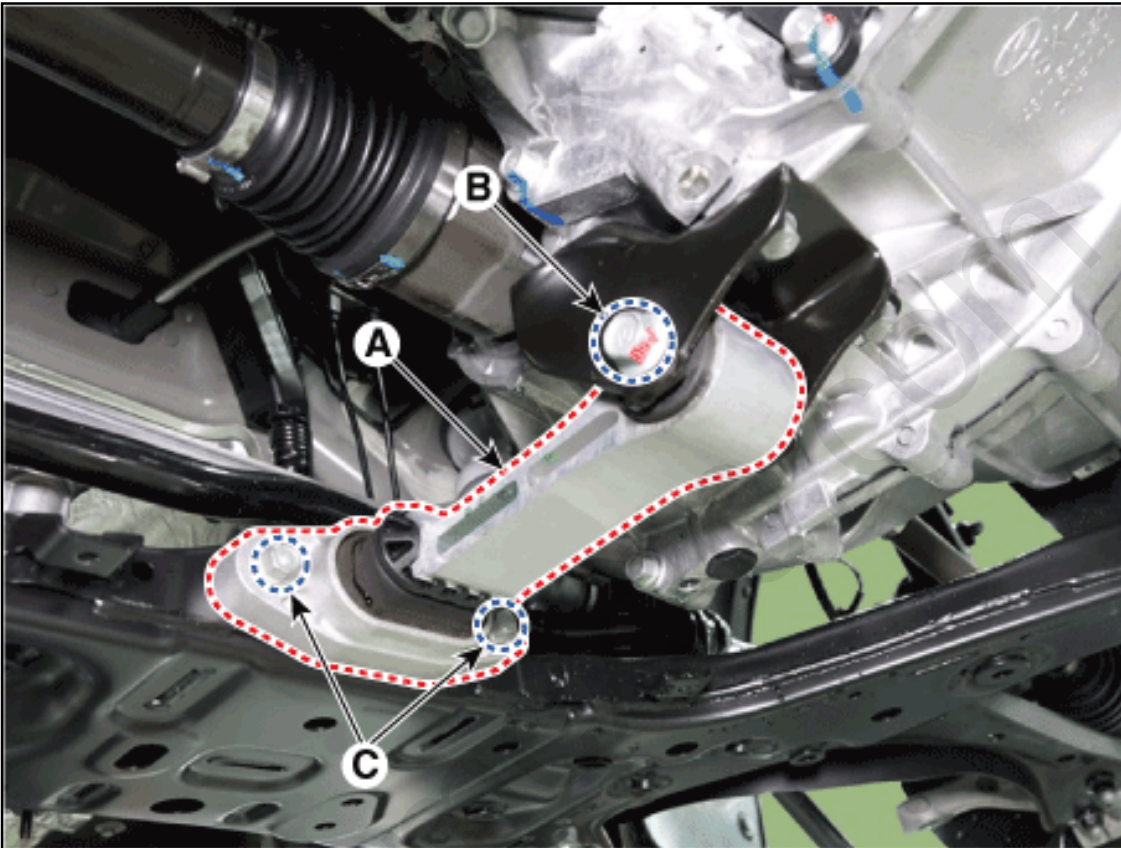
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")

2. Remove the roll rod bracket (A).

Tightening torque :

Bolt (B): 107.9 - 127.5 N.m (11.0 - 13.0 kgf.m, 79.6 - 94.0 lb-ft)

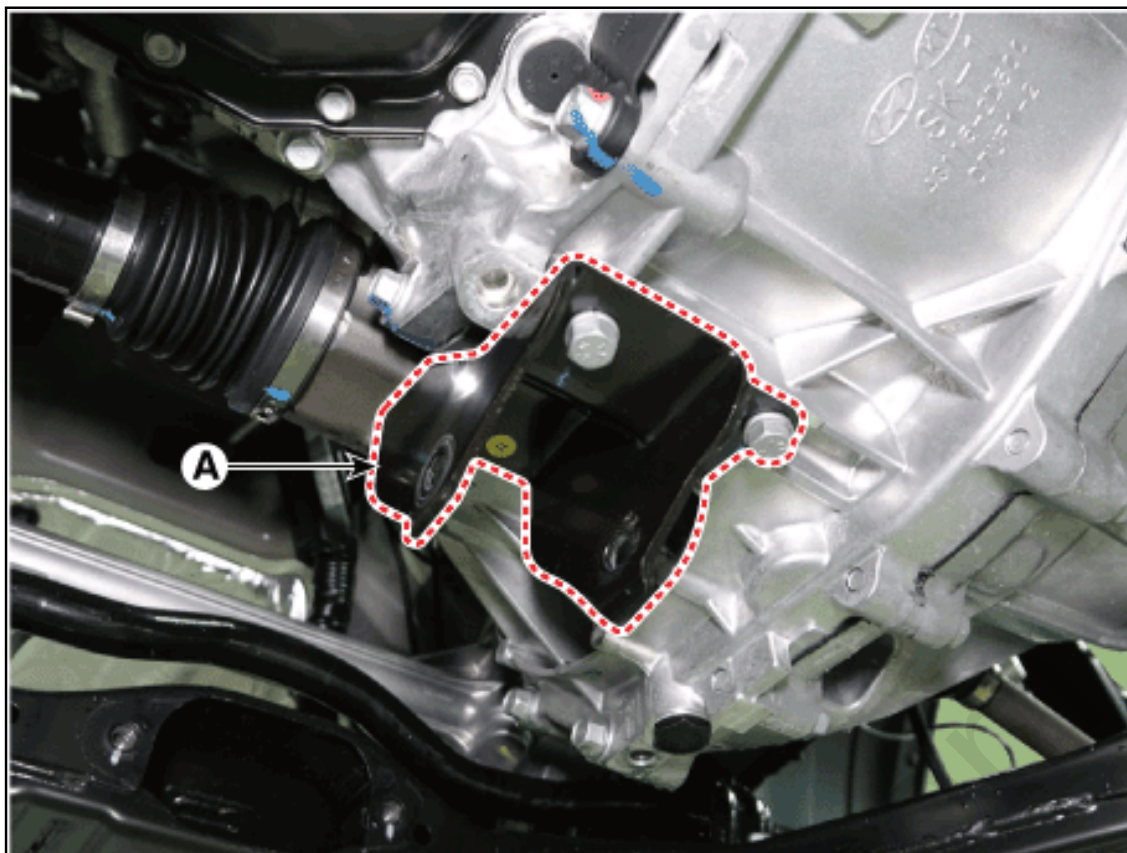
Bolts (C): 49.0 - 63.7 N.m (5.0 - 6.5 kgf.m, 36.2 - 47.0 lb-ft)



3. Remove the roll rod support bracket (A).

Tightening torque :

49.0 - 68.6 N.m (5.0 - 7.0 kgf.m, 36.2 - 50.6 lb-ft)



4. Installation is in the reverse order of removal.

Removal



- Use fender covers to avoid damaging painted surfaces.
- To avoid damage, unplug the wiring connectors carefully while holding the connector portion.

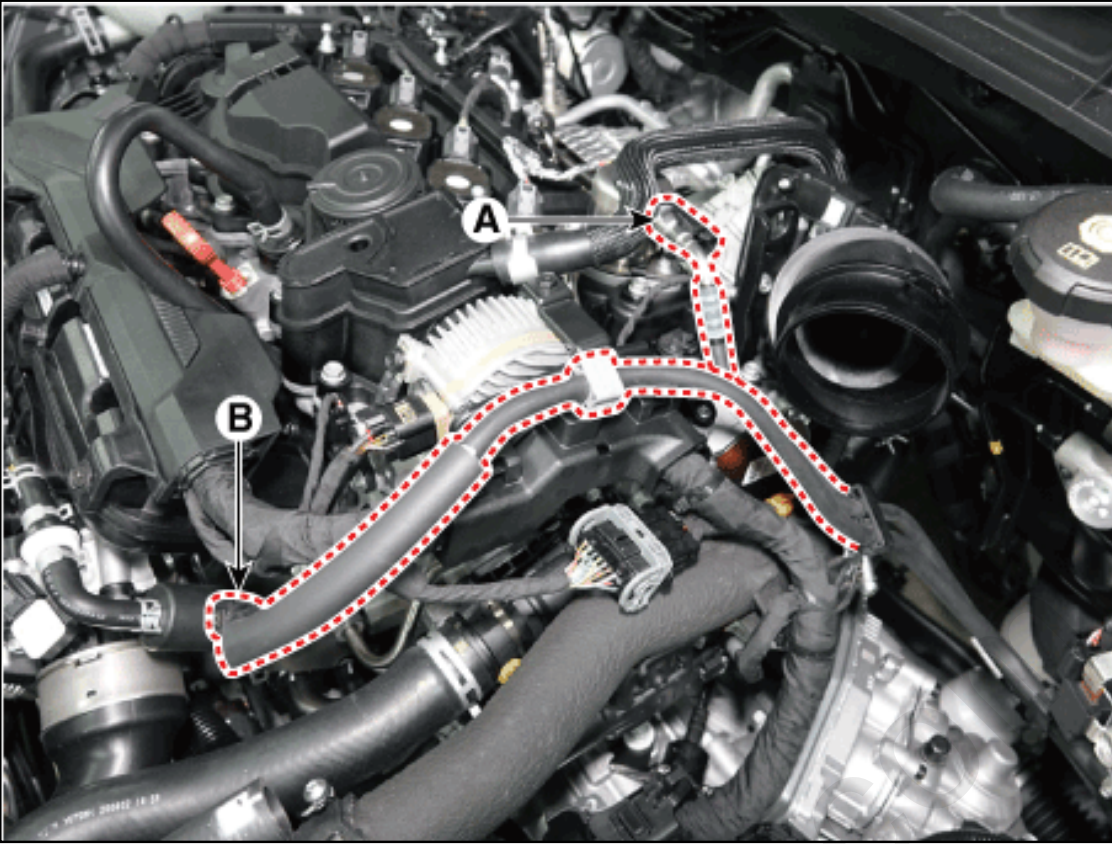


- Mark all wiring connector and hoses to avoid misconnection.

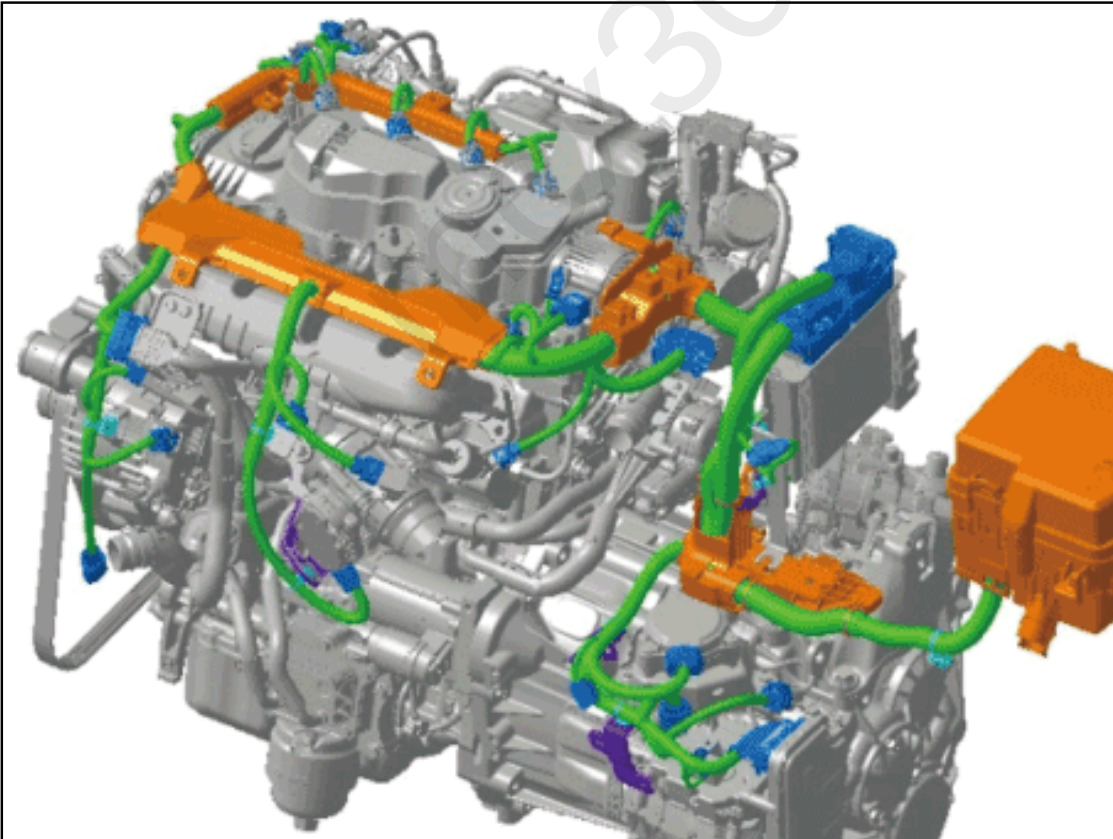
1. Disconnect the negative battery terminal.
2. Remove the engine cover.
(Refer to Engine and Transaxle Assembly - "Engine Cover")
3. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
4. Drain the coolant.
(Refer to Cooling System - "Coolant")
5. Recover the A/C refrigerant and then remove the high & low pressure pipes of A/C compressor.
(Refer to Heating, Ventilation Air conditioning - "Refreigerant Line")
6. Remove the air duct and air cleaner assembly.
(Refer to Intake and Exhaust System - "Air Cleaner")
7. Remove the battery and battery tray.
(Refer to Engine Electrical System - "Battery")
8. Disconnect the brake booster vacuum hose (A).

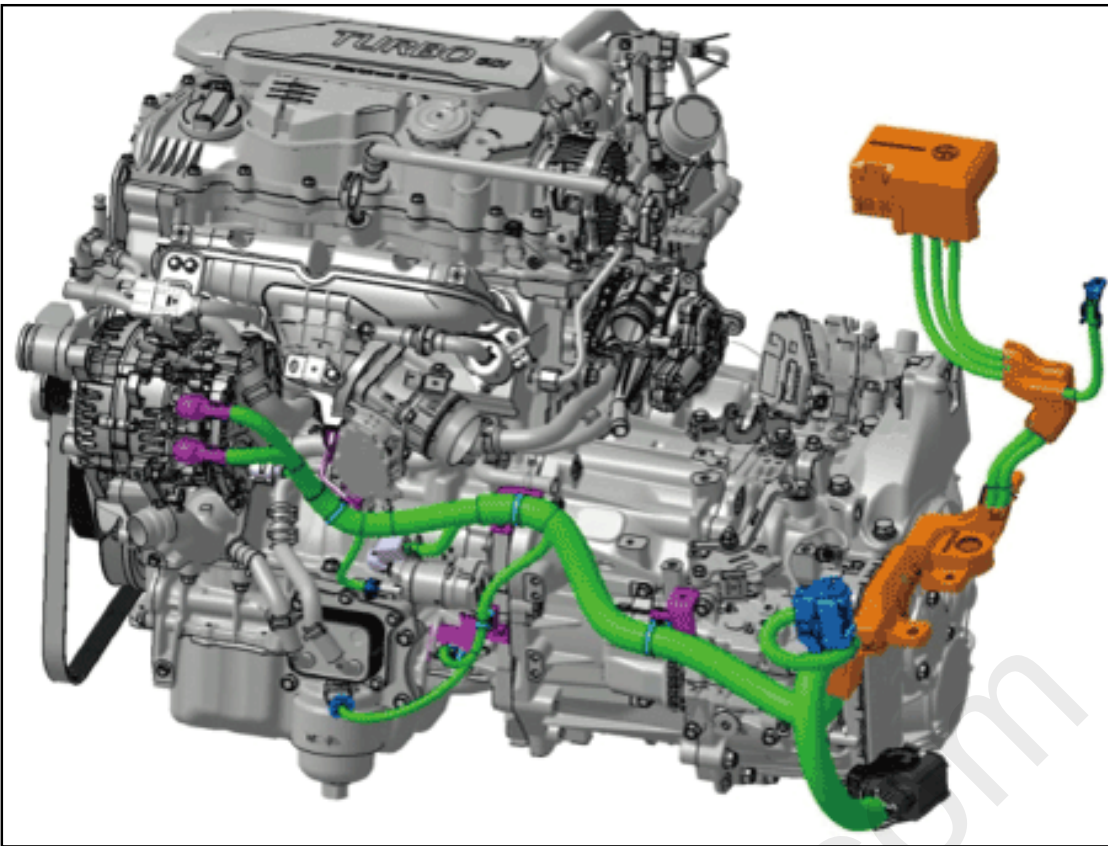


9. Disconnect the fuel hose (A) and PCSV hose (B).



10. Disconnect the wiring connectors and harness clamps and remove the connector brackets around the engine and transaxle assembly.





11. Disconnect the engine ground cable (A).

Tightening torque :

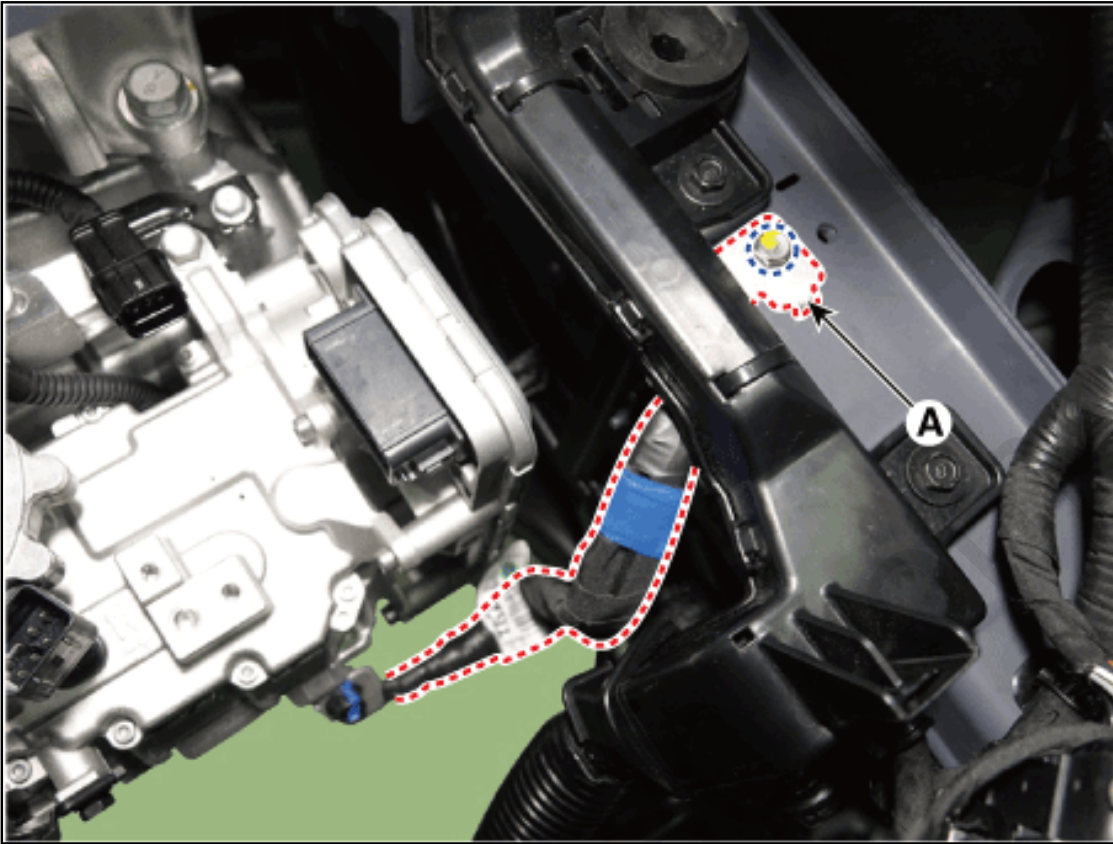
6.8 - 9.8 N.m (0.7 - 1.0 kgf.m, 5.1 - 7.2 lb-ft)



12. Disconnect the transaxle ground cable (A).

Tightening torque :

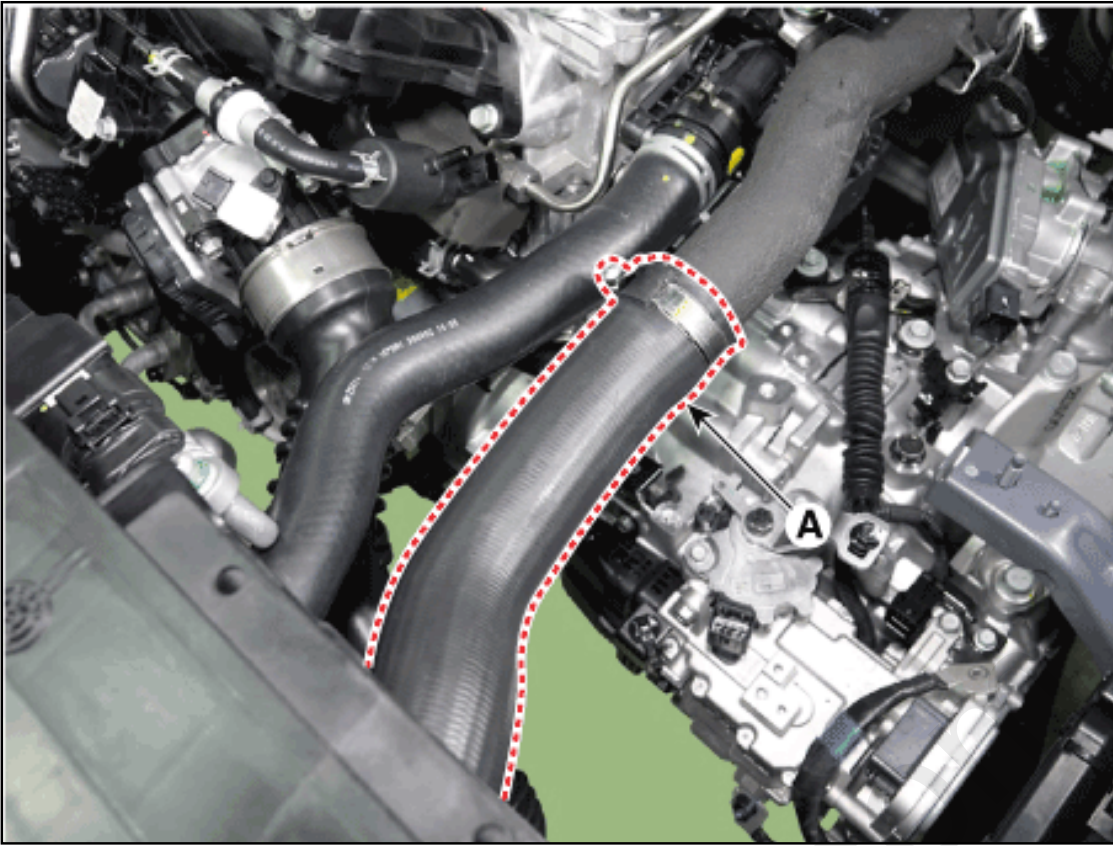
10.8 - 13.7 N.m (1.1 - 1.4 kgf.m, 8.0 - 10.1 lb-ft)



13. Disconnect the intercooler inlet hose (A).

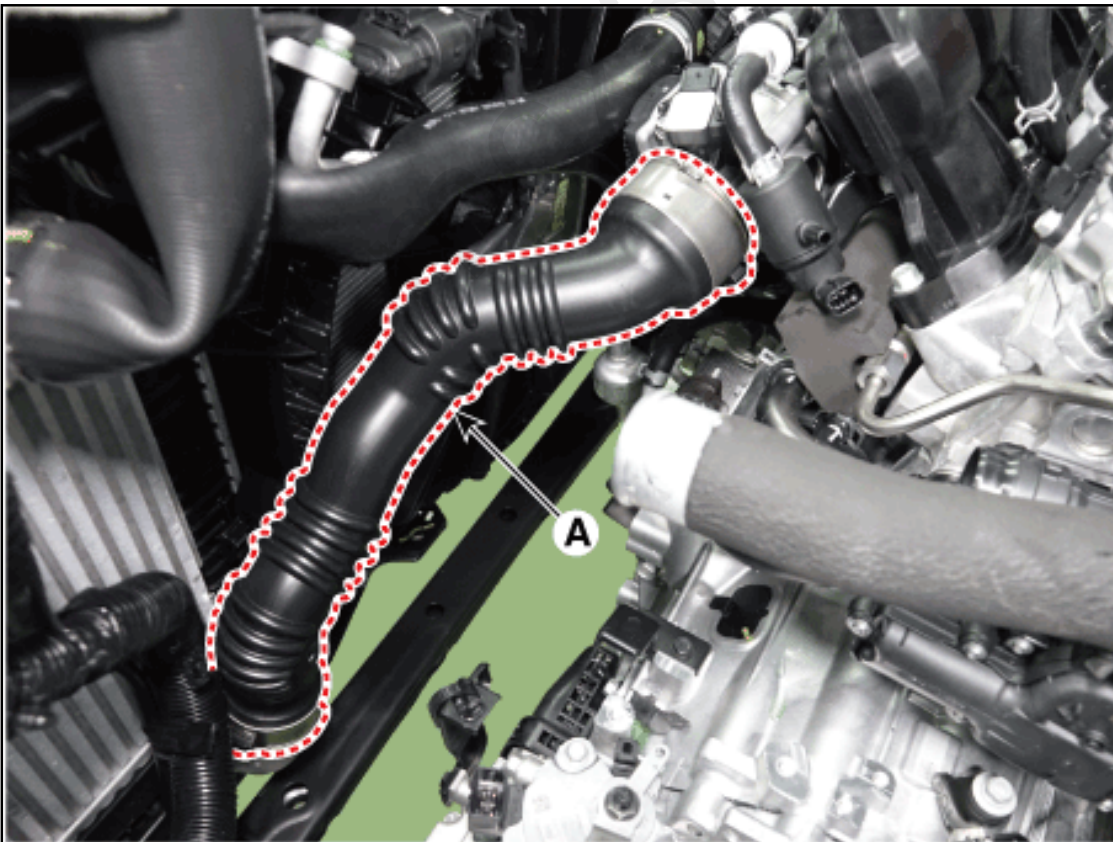
Tightening torque :

Clamp bolt: 4.9 - 6.9 N.m (0.5 - 0.7 kgf.m, 3.6 - 5.1 lb-ft)



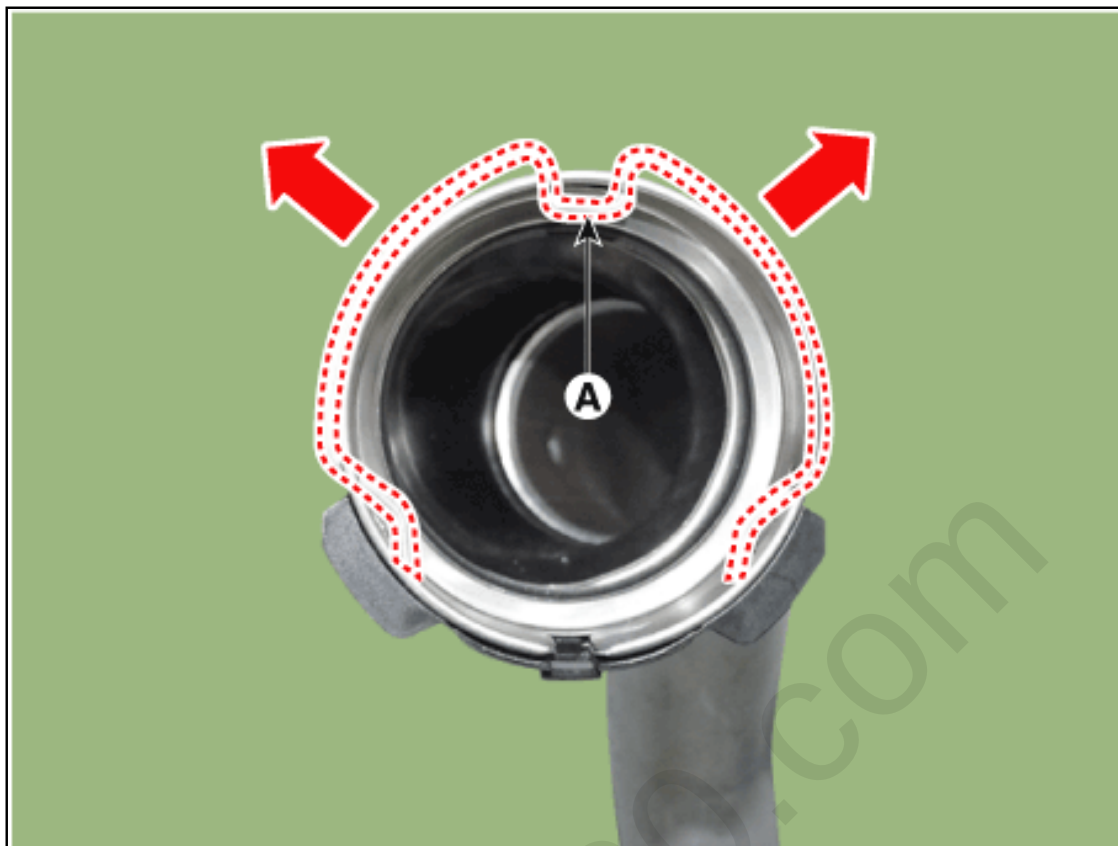
- Insert the hose until it reaches the end of stopper.

14. Remove the intercooler outlet hose (A).

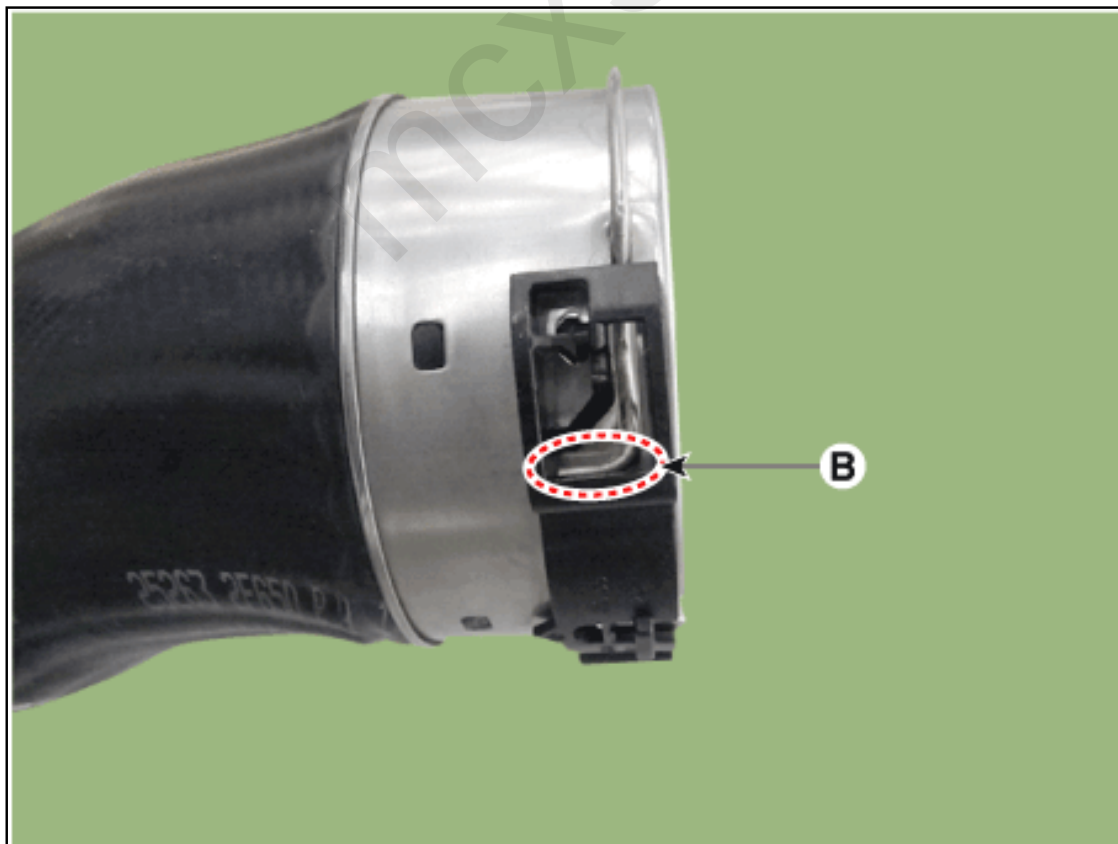


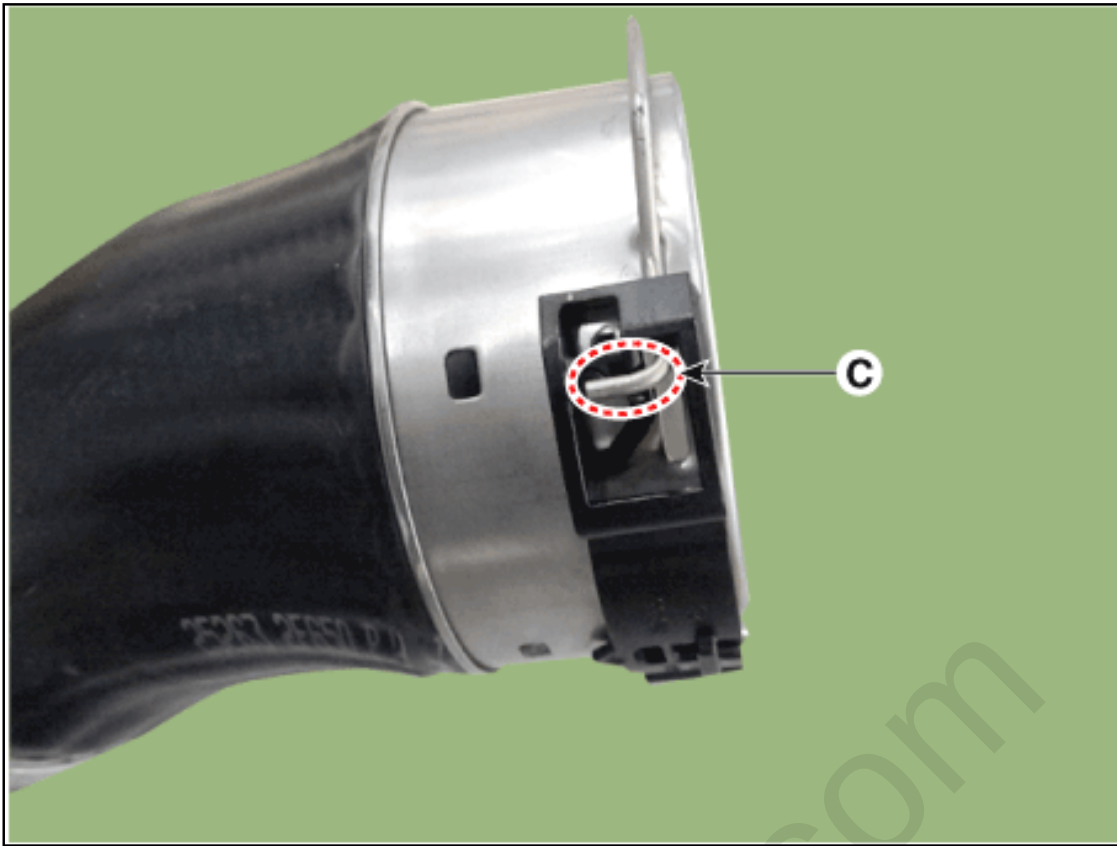


- 1) When disconnecting the intercooler hose, pull the quick connector clamp (A) in the direction of the arrow as below.

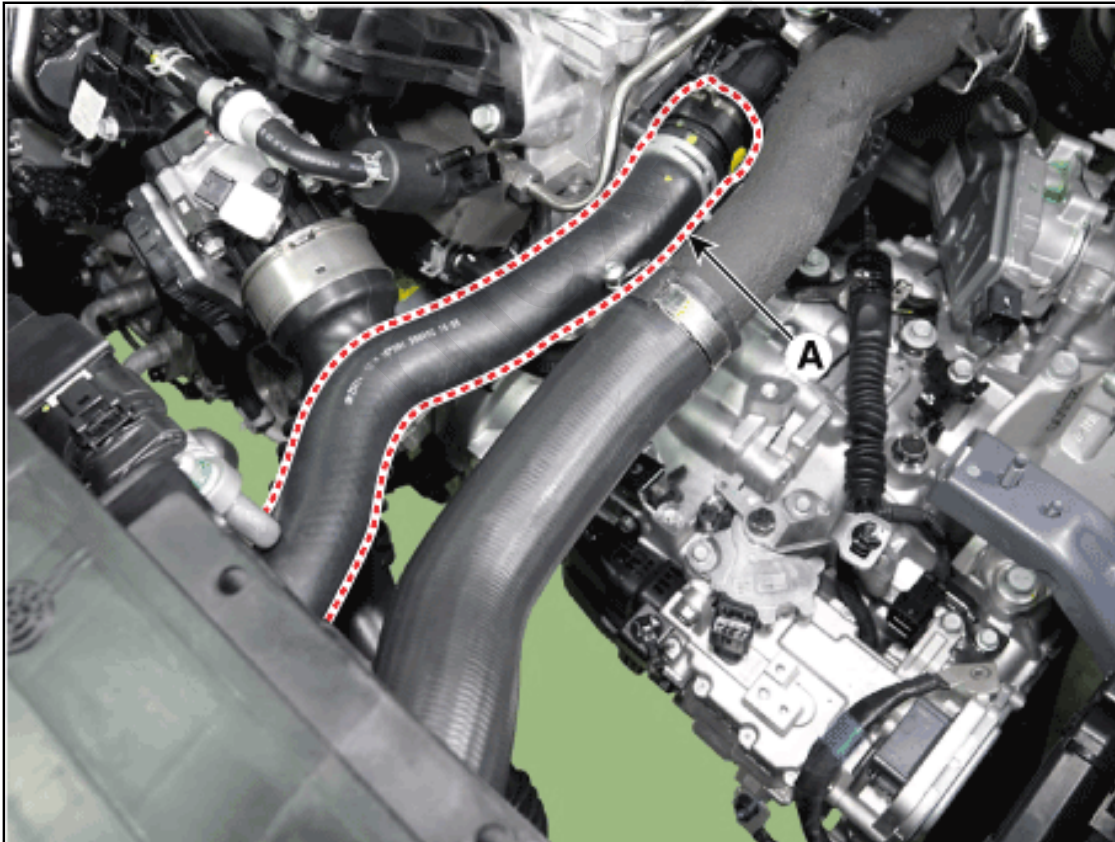


- 2) Move the quick connector clamp from B to C position as below and then disconnect by pulling the quick connector hose.

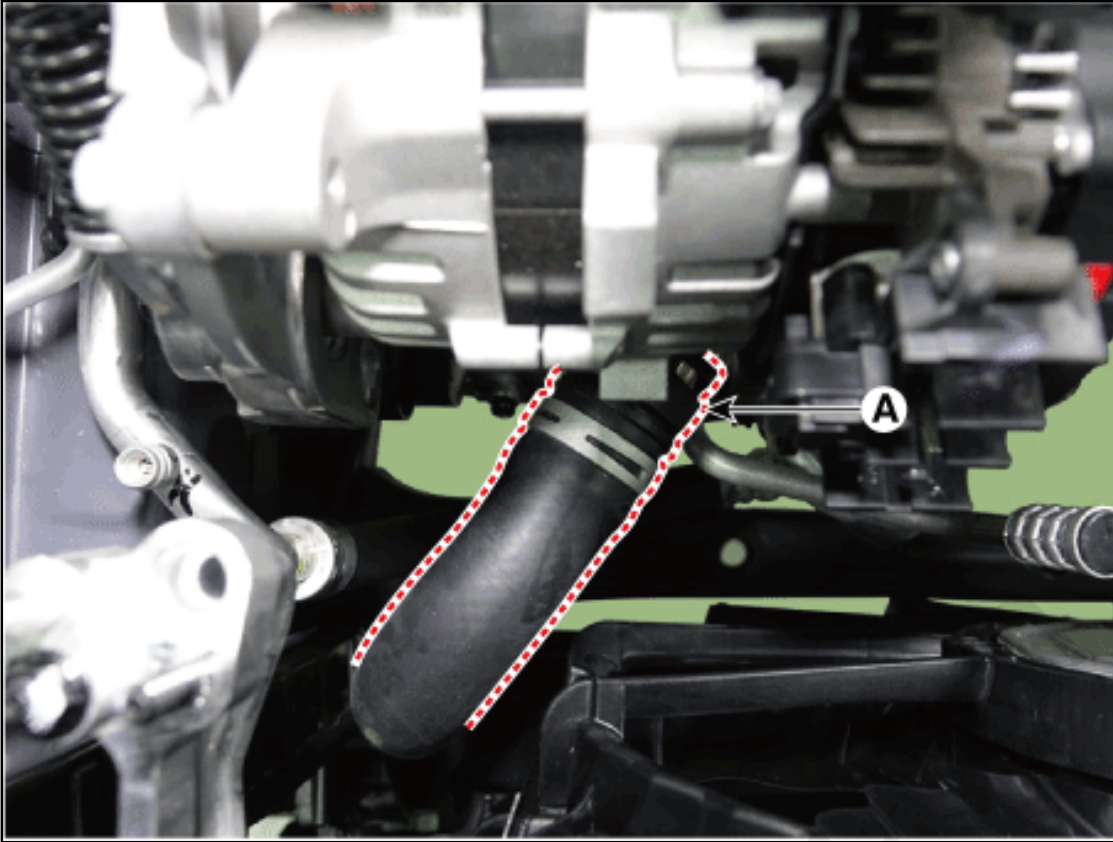




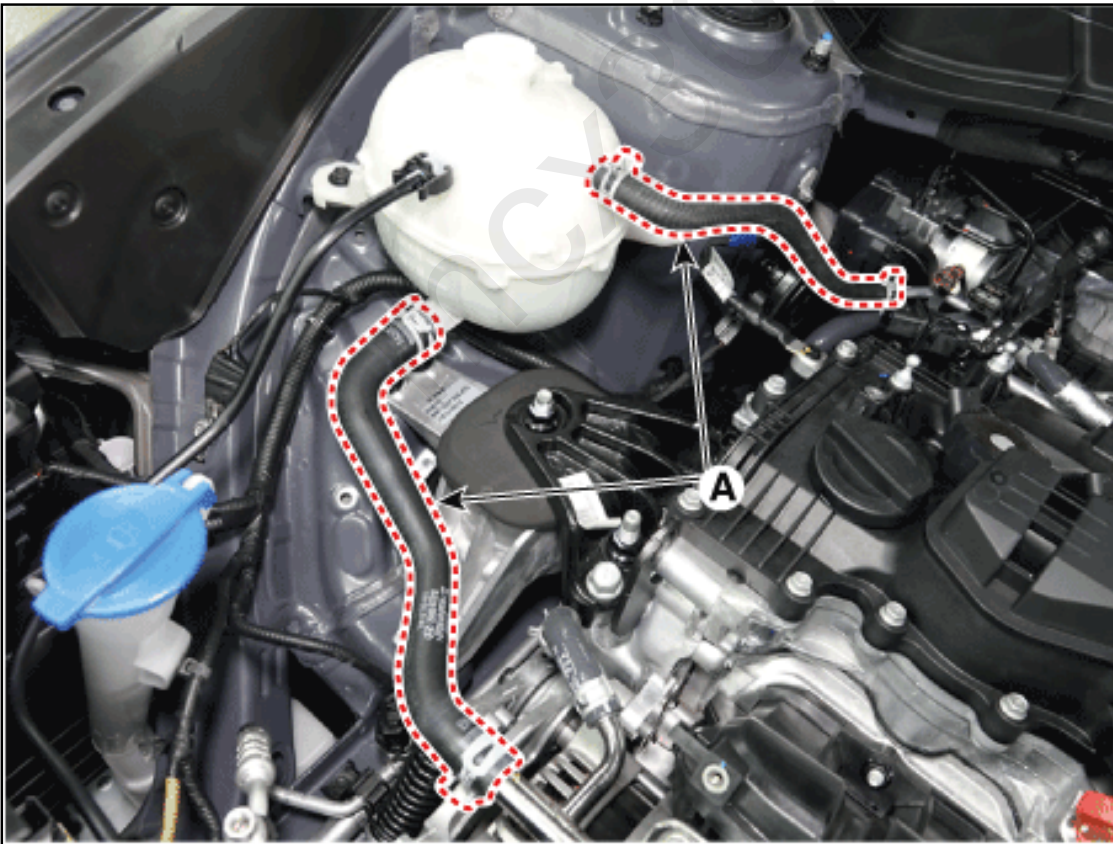
15. Disconnect the radiator upper hose (A).



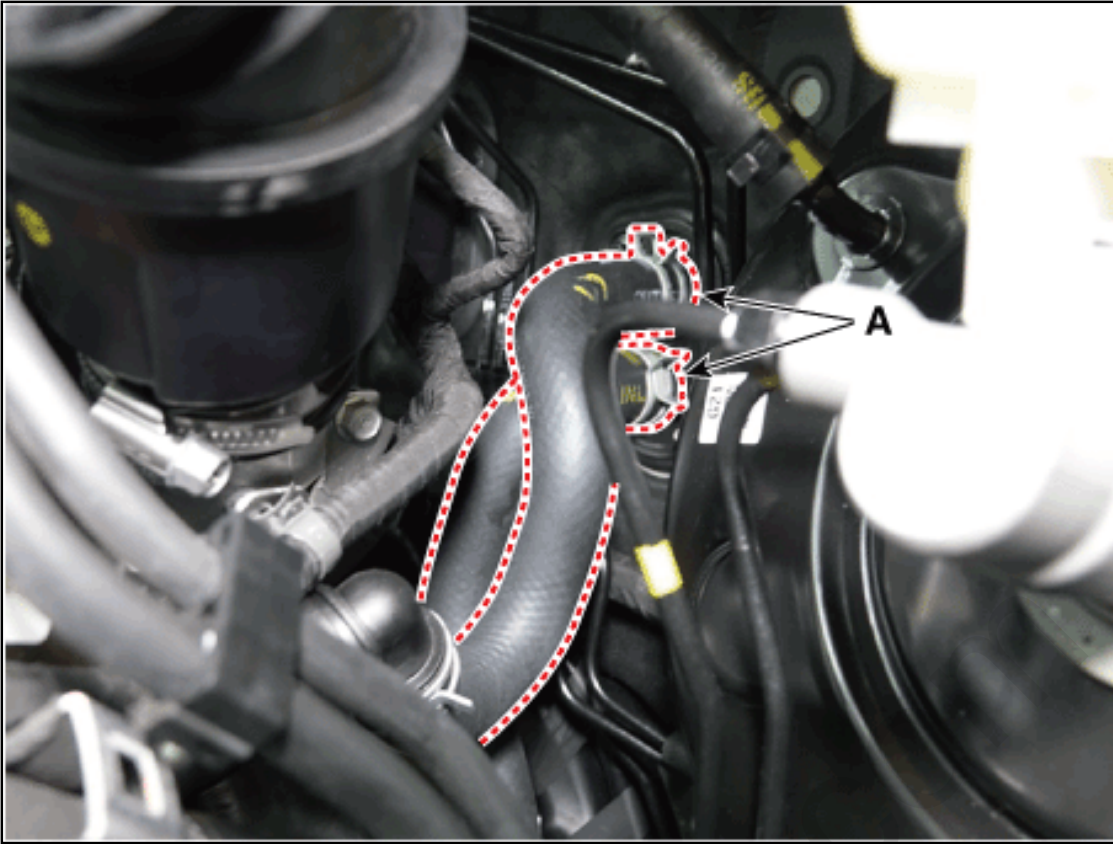
16. Disconnect the radiator lower hose (A).



17. Disconnect the coolant reservoir tank water hoses (A).



18. Disconnect the heater hoses (A).

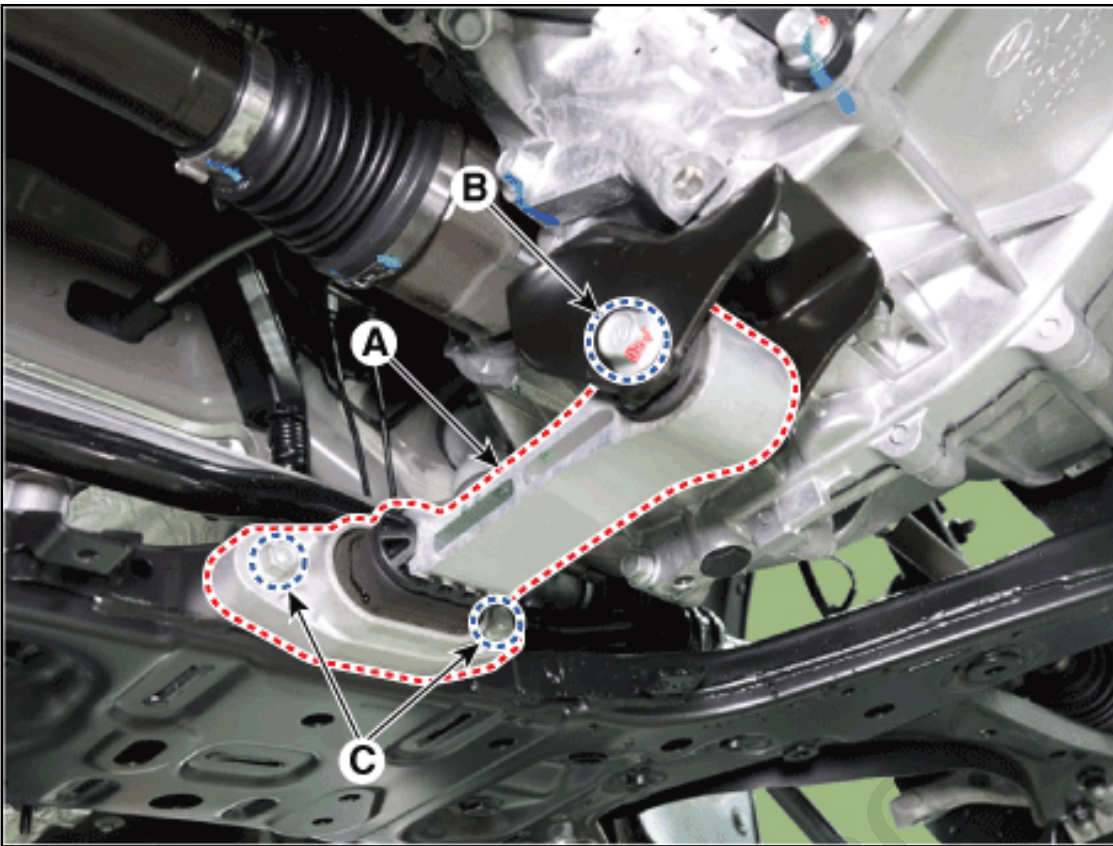


- 19. Remove the universal joint from the shaft joint
(Refer to Steering System - "Steering Gear Box")
- 20. Remove the front muffler.
(Refer to Intake And Exhaust System - "Muffler")
- 21. Remove the propeller shaft. [4WD]
(Refer to Driveshaft and Axle - "Propeller Shaft")
- 22. Remove the roll rod bracket (A).

Tightening torque :

Bolt (B): 107.9 - 127.5 N.m (11.0 - 13.0 kgf.m, 79.6 - 94.0 lb-ft)

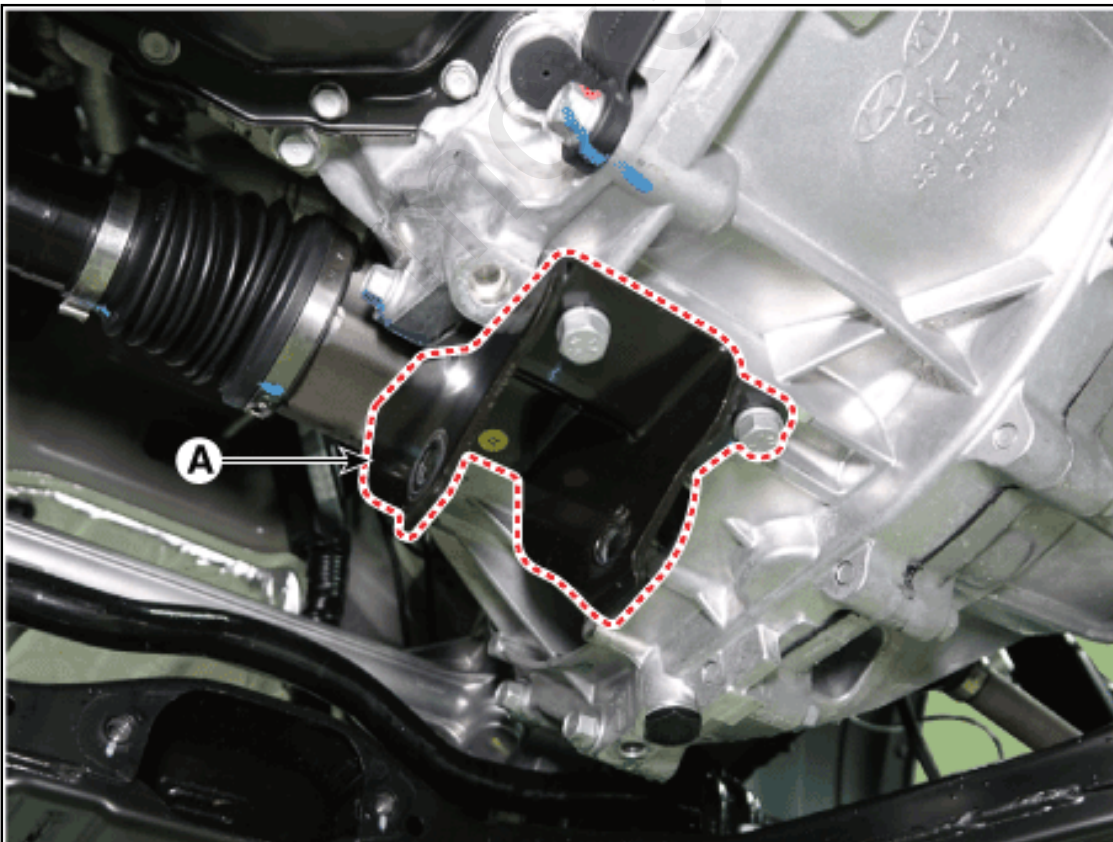
Bolts (C): 49.0 - 63.7 N.m (5.0 - 6.5 kgf.m, 36.2 - 47.0 lb-ft)



23. Remove the roll rod mounting support bracket (A).

Tightening torque :

49.0 - 68.6 N.m (5.0 - 7.0 kgf.m, 36.2 - 50.6 lb-ft)



24. Remove the sub frame.

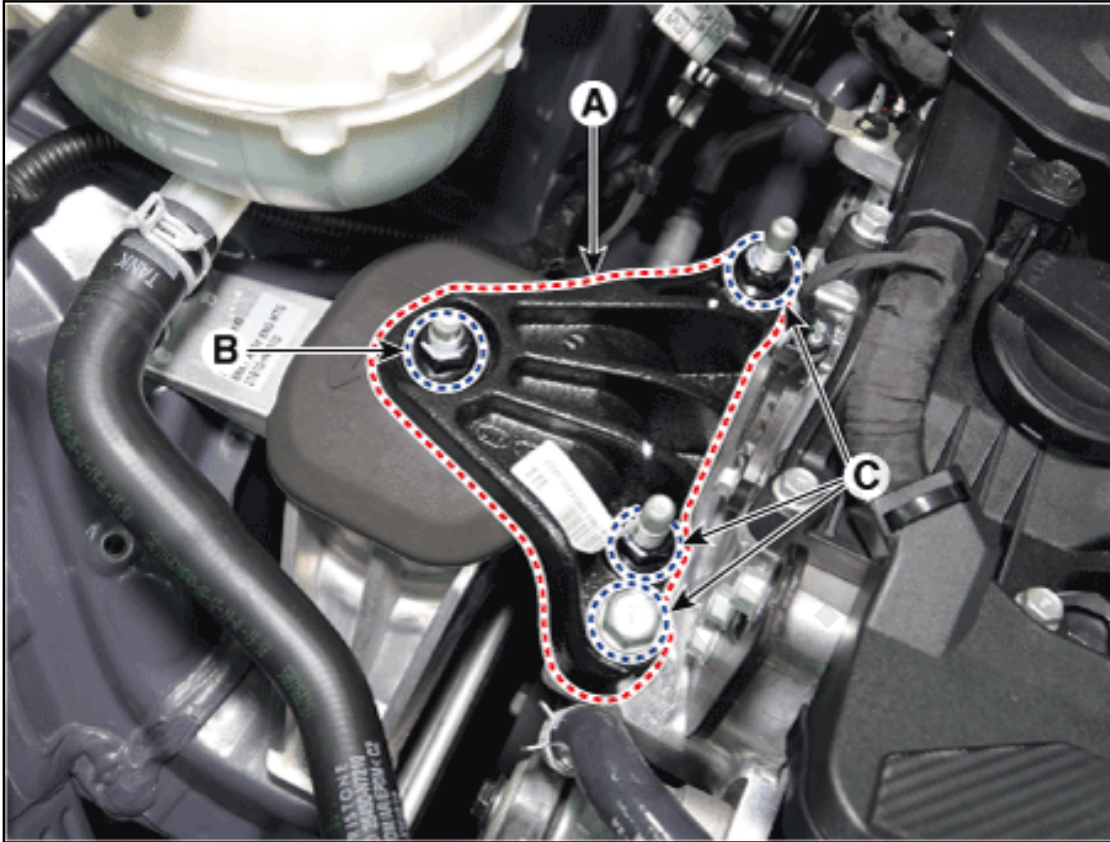
(Refer to Suspension System - "Sub frame")

25. Support the engine and transaxle assembly safely with a floor jack.

26. Remove the engine mounting support bracket (A).

Tightening torque :

Bolt and Nut (B, C) : 88.3 - 107.9 N.m (9.0 - 11.0 kgf.m, 65.1 - 79.6 lb-ft)



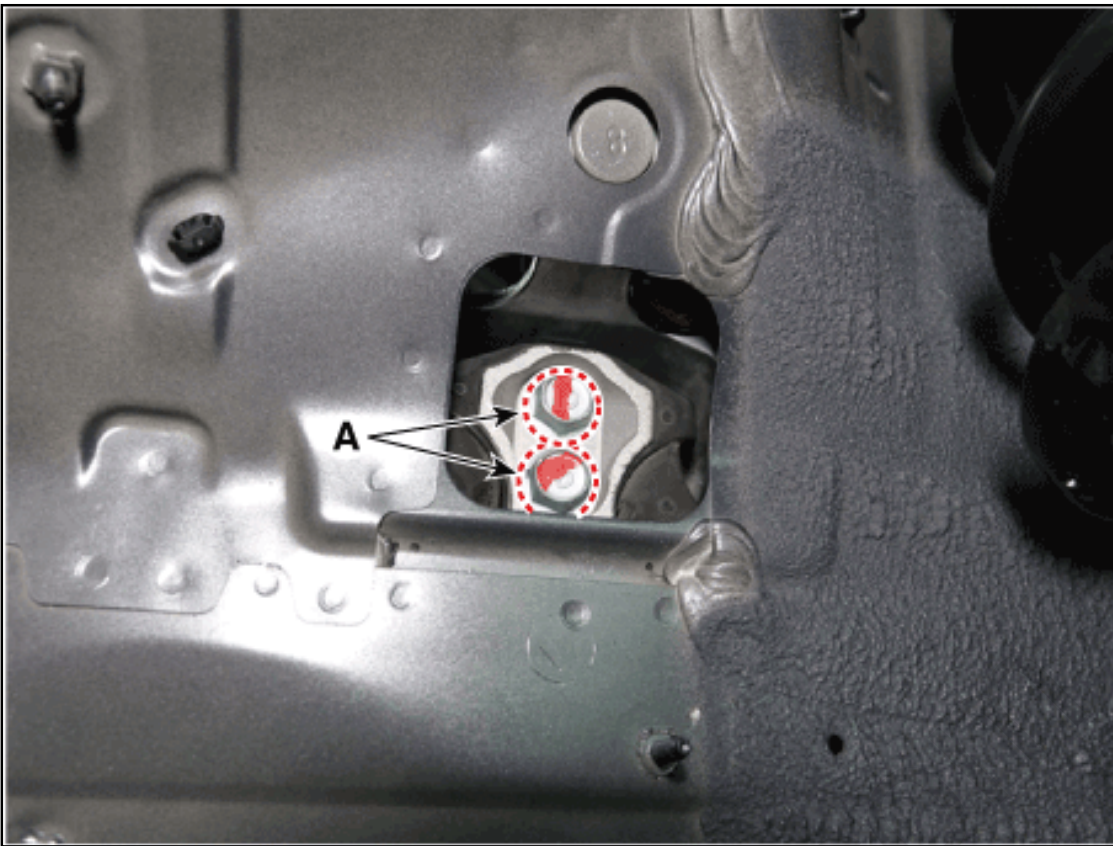
27. Remove the LH front wheel guard.

(Refer to Body (Interior and Exterior) - "Front Wheel Guard")

28. Loosen the transaxle support bracket mounting bolts (A).

Tightening torque :

107.9 - 127.5N.m (11.0 - 13.0 kgf.m, 79.6 - 94.0 lb-ft)



29. Remove the engine and transaxle assembly from a vehicle by slowly lifting off the vehicle.



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

30. Install in the reverse order of removal.



- Refill a radiator and a reservoir tank with engine coolant.
(Refer to Cooling System - "Coolant")
- Check the engine oil level.
If necessary, refill engine with engine oil.
- Check the transaxle oil level.
If necessary, refill a transaxle with fluid.
- Charging the refrigerant gas.
- Inspect for fuel leakage.