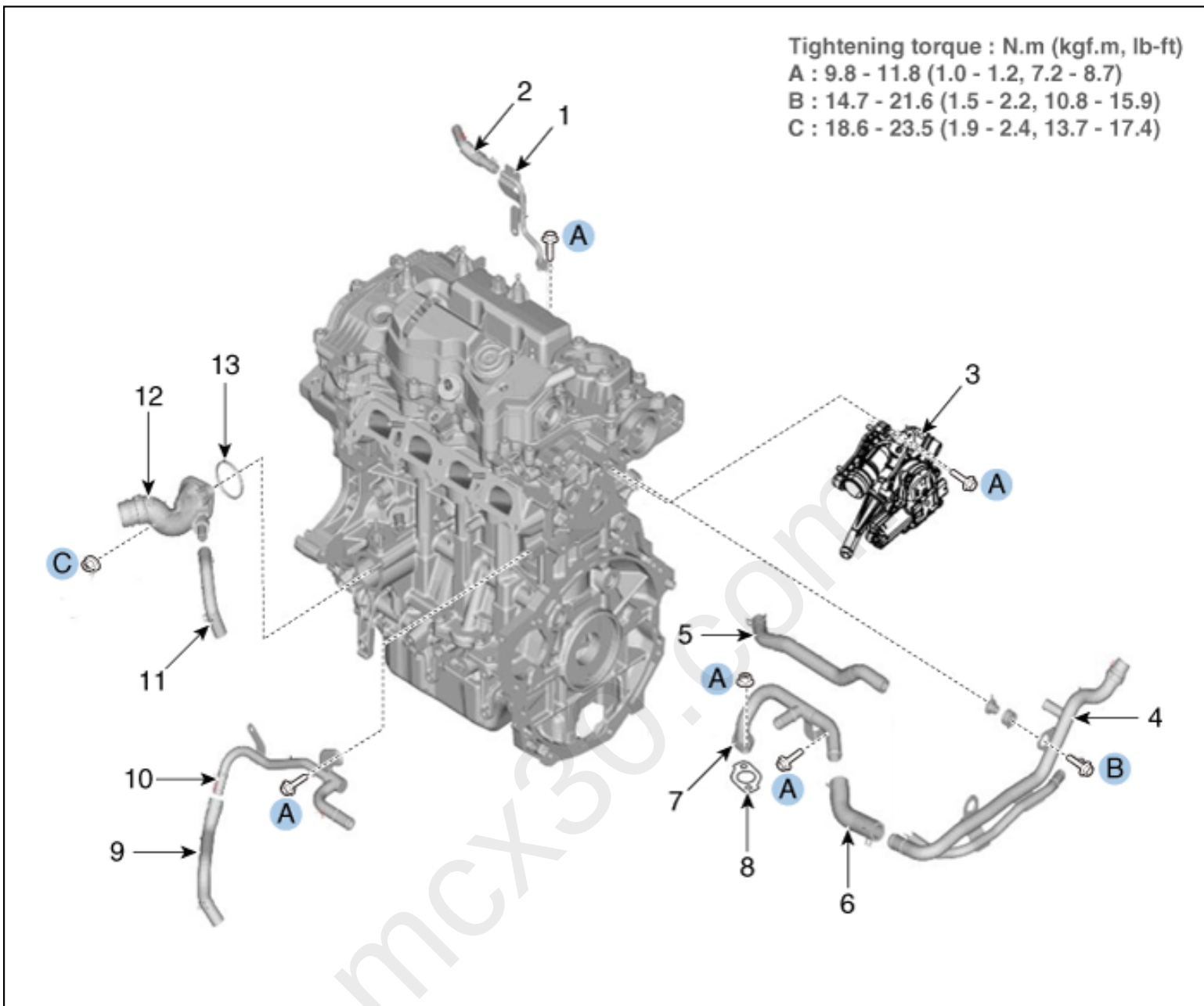




- | | |
|---|--------------------------------|
| 1. Water pipe | 8. Heater pipe A gasket |
| 2. Water hose | 9. Oil cooler hose A |
| 3. Integrated thermal management module (ITM) | 10. Oil cooler pipe |
| 4. Heater pipe | 11. Oil cooler hose B |
| 5. Turbo charger coolant hose | 12. Water inlet fitting |
| 6. Heater hose | 13. Water inlet fitting O-ring |
| 7. Heater pipe A | |

Engine Overheat Troubleshooting

	Inspection	Remedy
Visual inspection	Inspect for shortage of coolant in reservoir tank .	Reinspect after replenishing coolant.
	Inspect for coolant pollution after removing radiator cap. ☐ •Be careful when removing radiator cap from overheated vehicle.	Reinspect after replacing coolant.
	Inspect for leakage and loose coolant hoses (radiator hose, heater hose, oil cooler hose, etc.).	Reinspect for leakage after reinstalling hoses and clamps.
	Checking for coolant leaks of Integrated Thermal Management Module (ITM)	Replace O-ring or replace the integrated thermal management module (ITM) if required
	Inspecting the heater pipe connection to find coolant leaks.	Reinspect for leakage after reinstalling hoses and clamps.
	Inspect for leakage on water inlet fitting mounting part.	Reinspect for leakage after replacing O-ring.
		Reinspect for leakage after tightening to the specified torque.
	Inspect drive belt (for normal operation of water pump).	Adjust drive belt tension or replace.
	Inspect for leakage on water pump gasket mounting part.	Reinspect for leakage after replacing gasket.
		Reinspect for leakage after tightening to the specified torque.
	Inspect for loose coolant temperature sensor, cooling fan connector and pin.	Reinstall loose connector.
		Replace relevant part if connector pin is damaged.

	Inspect operation status of cooling fan. - Check operation status by switching ON/OFF the heater control A/C. ☐ •Will not operate in cold ambient temperature.	Check mounting status of ground cable.
Diagnostic device	Inspect self-diagnostic code using diagnostic tool.	Check coolant temperature sensor, wiring, connector, etc.
Unit inspection	Inspect water pump impeller.	Replace water pump.

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Replacement and Air Bleeding



- Never remove the reservoir tank cap when the engine is hot. Serious scalding could be caused by hot fluid under high pressure escaping from the radiator.



- When pouring engine coolant, be sure to shut the relay box lid and not to let coolant spill on the electrical parts or the paint. If any coolant spills, rinse it off immediately.
- When changing the coolant and draining air, be sure to follow the filling instructions of the Integrated Thermal Management Module (ITM).

If Diagnostic Tool is available, change the coolant and drain air according to the descriptions below.

1. Make sure the engine and radiator are cool to the touch.
2. Remove the coolant reservoir tank cap (A).



3. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
4. Loosen the drain plug (A), and drain the coolant.



5. Tighten the radiator drain plug securely after draining the coolant.
6. Clean the coolant reservoir tank after drain the coolant.
7. IG Key OFF, Fill with fluid mixture of coolant and water (45 - 60%) slowly through the coolant reservoir tank cap.

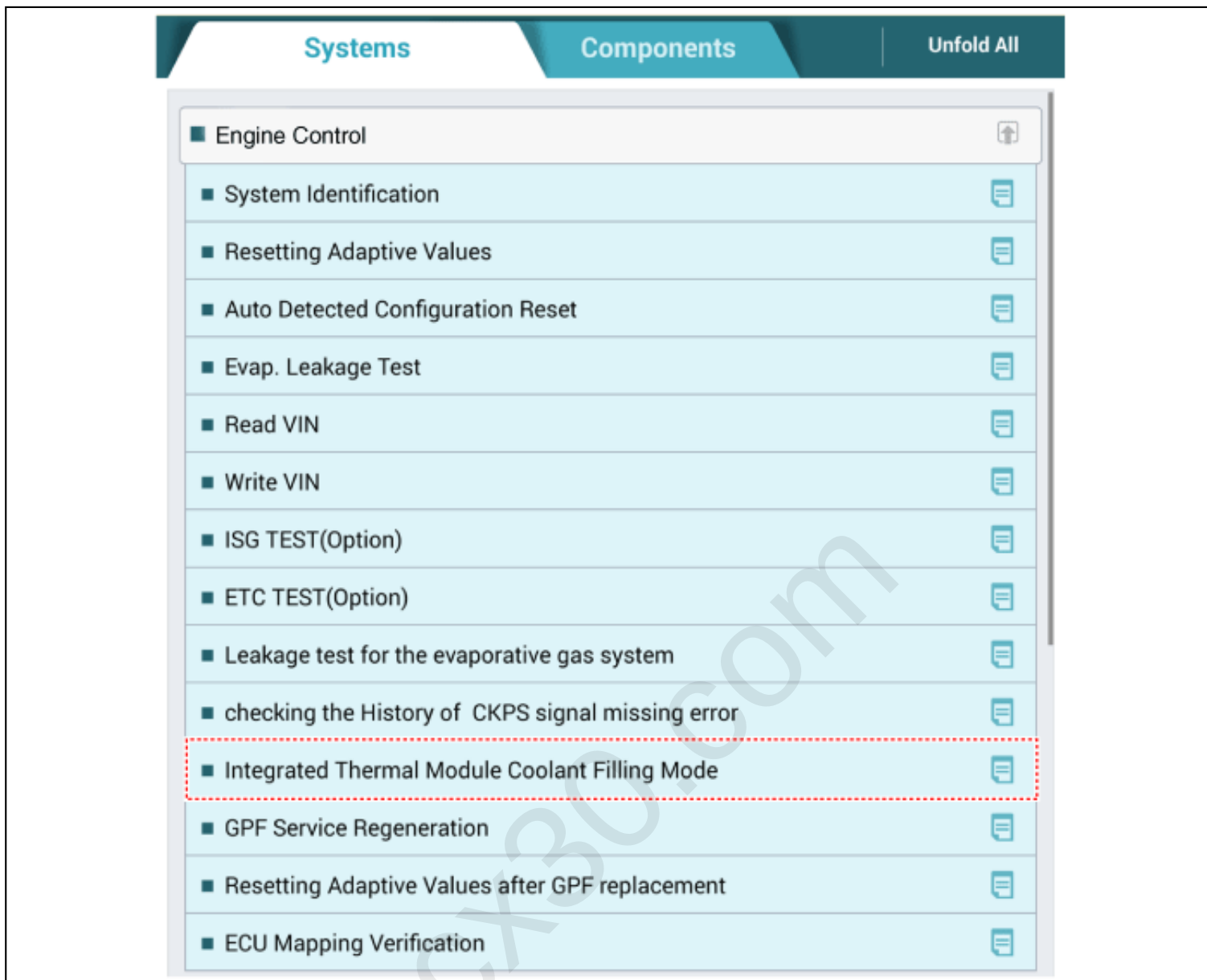
Coolant capacity

Approx. 7.6 L (2.01 US.gal., 8.03 US.qt., 6.68 Imp.qt.)



- Fill the coolant as much as possible with the engine OFF.
- Press the upper / lower hoses on the radiator so that the air can get out easily.
- Use only genuine antifreeze/coolant.
- For best corrosion protection, the coolant concentration must be maintained year-round at 45 - 60% minimum. Coolant concentrations less than 45 - 60% may not provide sufficient protection against corrosion or freezing.
- Coolant concentrations greater than 60% will impair cooling efficiency and are not recommended.
- Do not mix different brands of antifreeze/coolants.
- Do not use additional rust inhibitors or antirust products; they may not be compatible with the coolant.

8. Connect the diagnostic tool and then Key 'IG ON'.
9. Use the diagnostic tool to activate the "integrated thermal management module (ITM) coolant refilling mode".



10. Complete the ITM coolant refilling mode according to the procedure of the diagnostic tool.

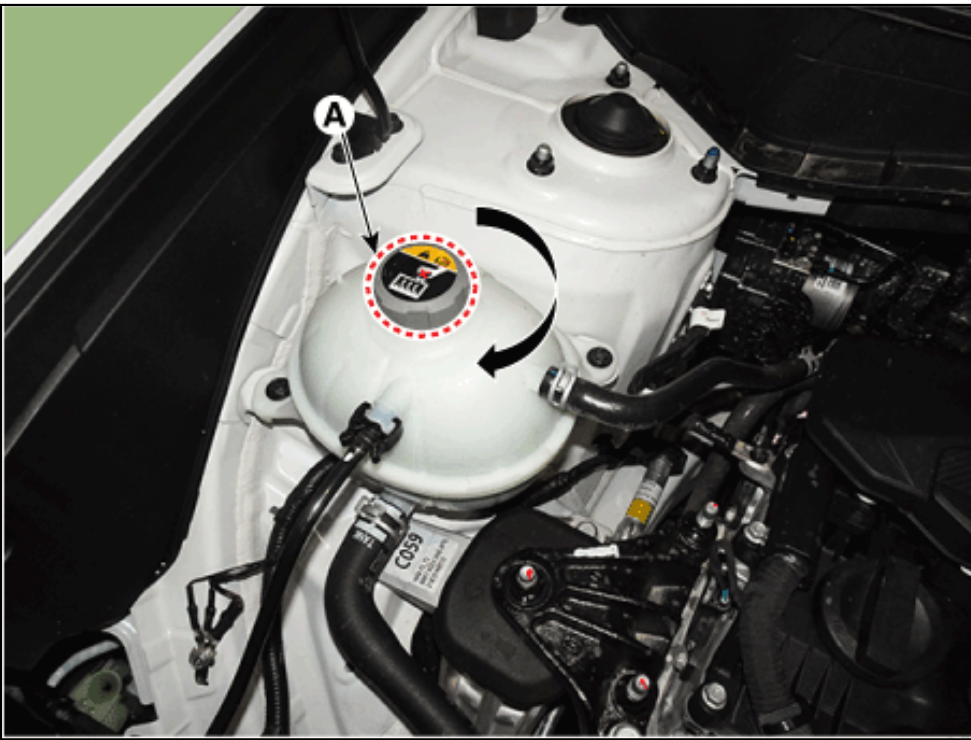
11. Key-off and then disconnect the diagnostic tool.



Key-off :

- Turn Key: The start key has been removed from the keybox.
- Button key (including SmartKey): Power(ACC, ON) is not activated.

12. Install the coolant reservoir tank cap (A).



13. Check the coolant quantity after driving the vehicle.
14. If the coolant is insufficient, replenish it.
15. Install the engineroom under cover.

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

If Diagnostic Tool is not available, replace the coolant and drain air according to the descriptions below.

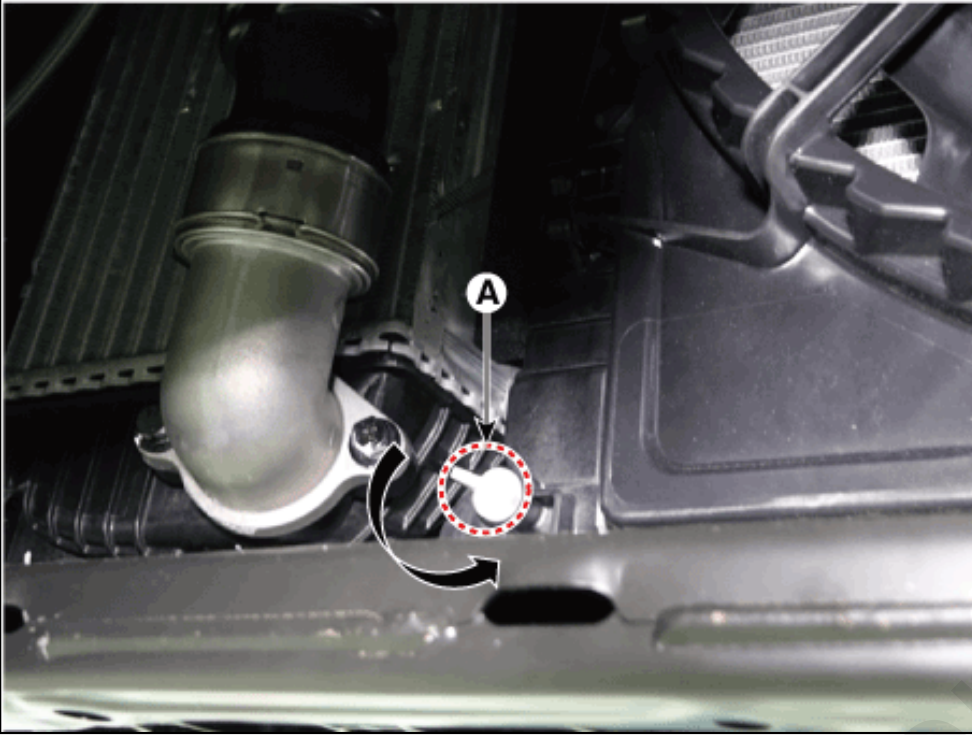
1. Make sure the engine and radiator are cool to the touch.
2. Remove the coolant reservoir tank cap (A).



3. Remove the engine room under cover.

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

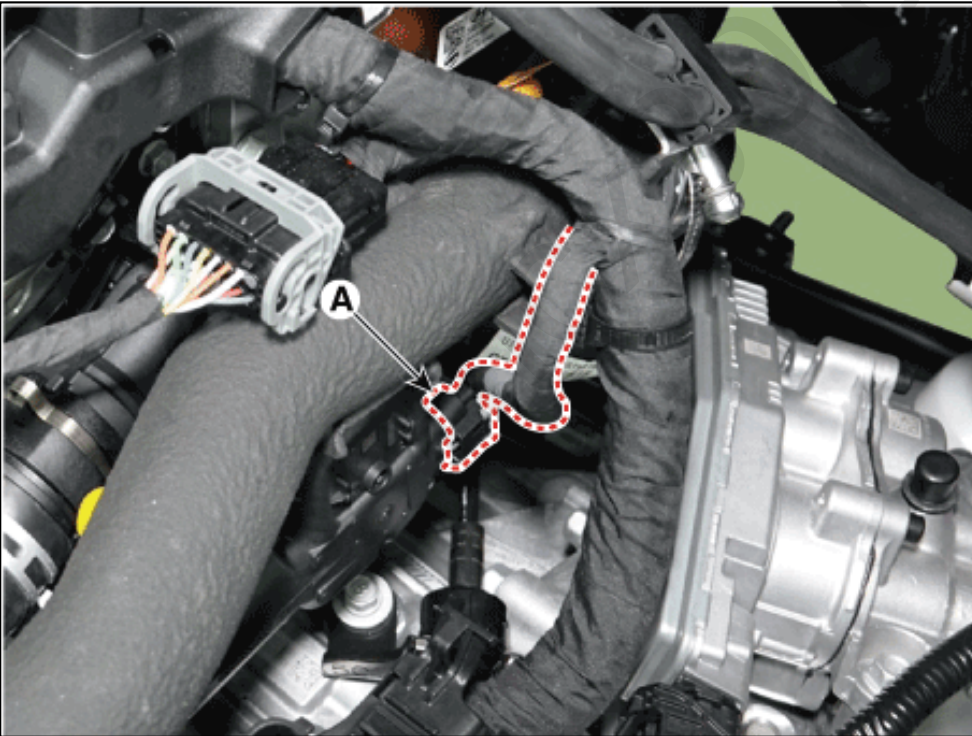
4. Loosen the drain plug (A), and drain the coolant.



5. Tighten the radiator drain plug securely after draining the coolant.

6. Clean the coolant reservoir tank after drain the coolant.

7. Key-off and then disconnect the integrated thermal management module (ITM) connector (A).



- ☐
- When disconnecting the integrated thermal management module (ITM) connector, make sure that there is no power to the engine and other components.
 - Be careful that static electricity and other voltages are not applied to the integrated thermal management module (ITM).
 - Do not bring anything with magnetism, such as a magnet, close to the integrated thermal management module (ITM).

**Key-off :**

- Turn Key: The start key has been removed from the keybox.
- Button key (including SmartKey): Power(ACC, ON) is not activated.

8. Fill with fluid mixture of coolant and water (45 - 60%) slowly through the coolant reservoir tank cap.

Coolant capacity

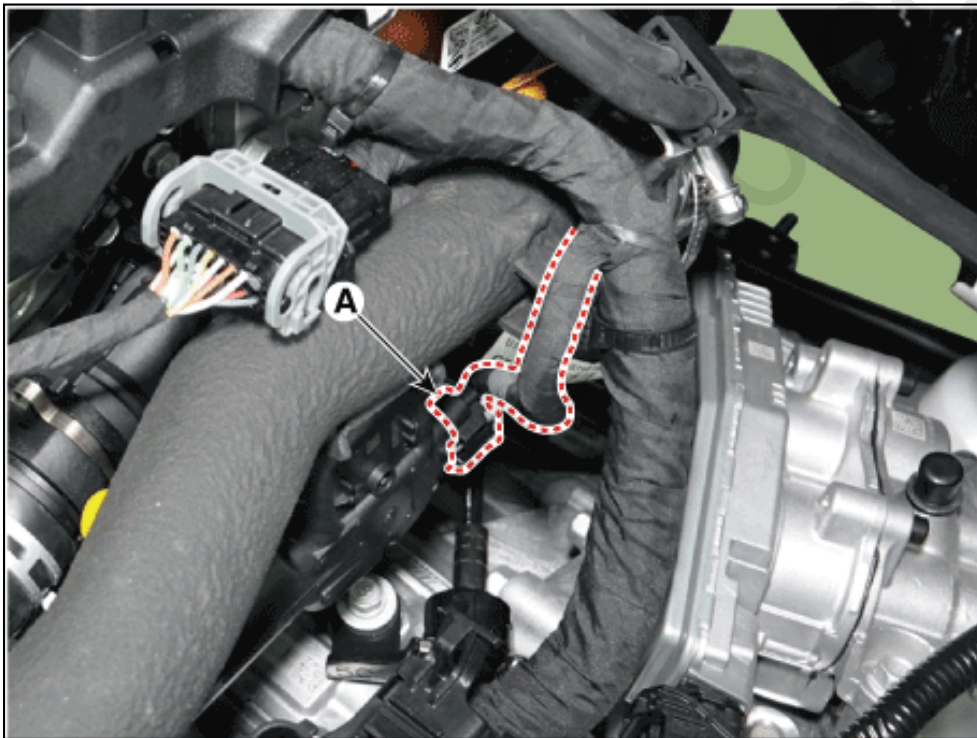
Approx. 7.6 L (2.01 US.gal., 8.03 US.qt., 6.68 Imp.qt.)



- Fill the coolant as much as possible with the engine and all power OFF.
- Press the upper / lower hoses on the radiator so that the air can get out easily.
- Use only genuine antifreeze/coolant.
- For best corrosion protection, the coolant concentration must be maintained year-round at 45 - 60% minimum. Coolant concentrations less than 45 - 60% may not provide sufficient protection against corrosion or freezing.
- Coolant concentrations greater than 60% will impair cooling efficiency and are not recommended.
- Do not mix different brands of antifreeze/coolants.
- Do not use additional rust inhibitors or antirust products; they may not be compatible with the coolant.

9. After starting the engine, refill the coolant for 20 minutes used by coolant reservoir tank.

10. After shut engine off and connect the integrated thermal management module (ITM) connector (A).



- When connecting the integrated thermal management module (ITM) connector, water or oil must be completely removed from the connector and no foreign matters should be entered.
- When replacing the integrated thermal management module (ITM) connector, be sure to use the specified connector.

11. After starting the engine for 5 seconds, turn off the engine.



- This procedure is repeated 3 times.
- Check if the check engine light is OFF in the 4th after 3 repetitions.

12. Install the coolant reservoir tank cap (A).



13. Check the coolant quantity after driving the vehicle.

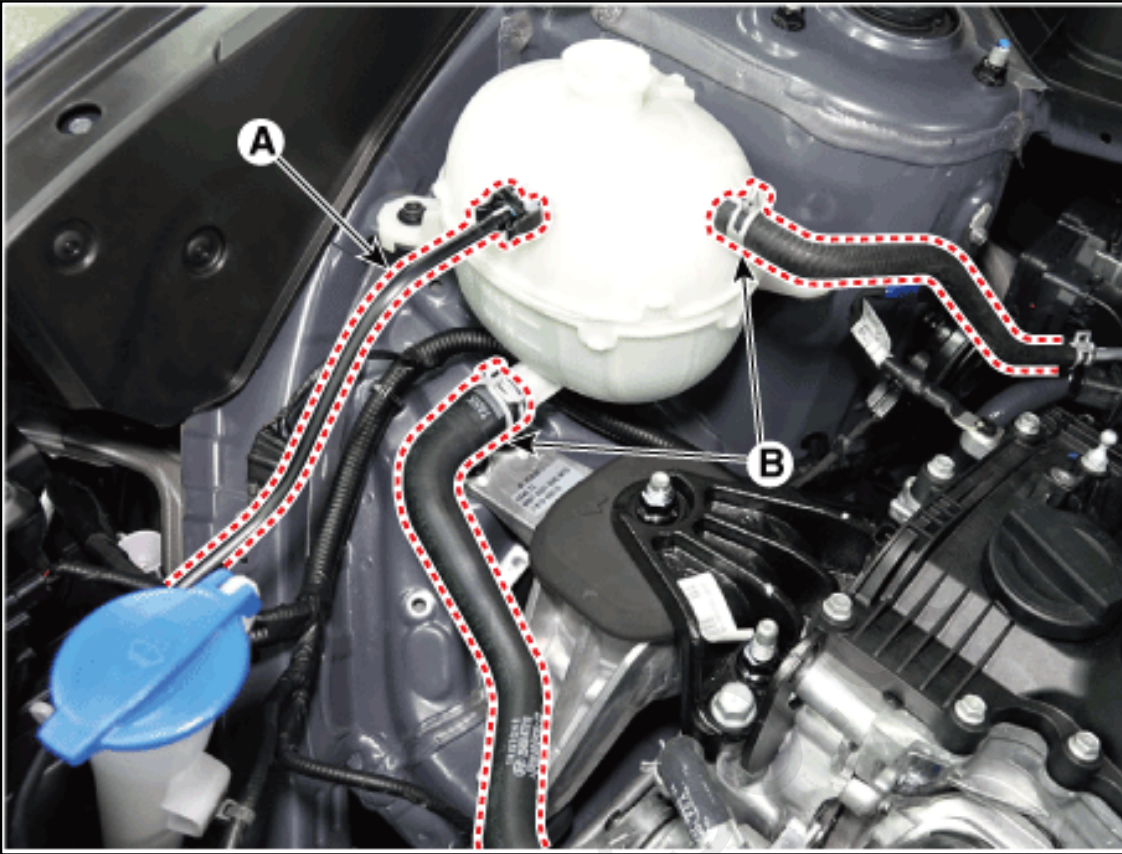
14. If the coolant is insufficient, replenish it.

15. Install the engineroom under cover.

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

Removal and Installation

1. Drain the coolant.
(Refer to Cooling System - "Coolant")
2. Disconnect the degassing hose (A) and coolant reservoir tank hoses (B).



3. Remove the coolant reservoir tank (A).

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



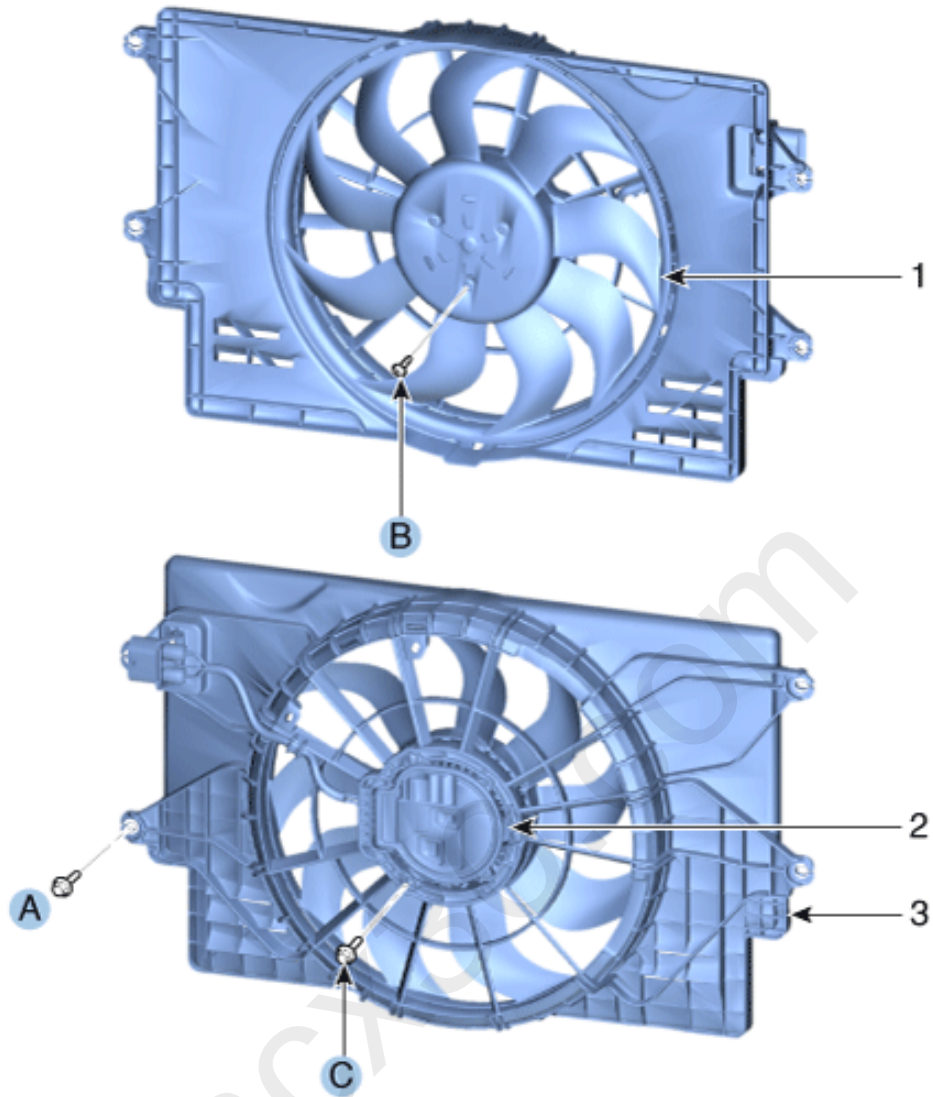
4. Install in the reverse order of removal.

5. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.



Tightening torque :

A : 4.9 - 7.8 N.m (0.5 - 0.8 kgf.m, 3.6 - 5.8 lb-ft)

B : 6.86 - 8.82 N.m (0.7 - 0.9 kgf.m, 5.06 - 6.51 lb-ft)

C : 8.83 - 10.79 N.m (0.9 - 1.1 kgf.m, 6.51 - 7.96 lb-ft)

1. Cooling fan

2. Fan motor

3. Cooling fan shroud

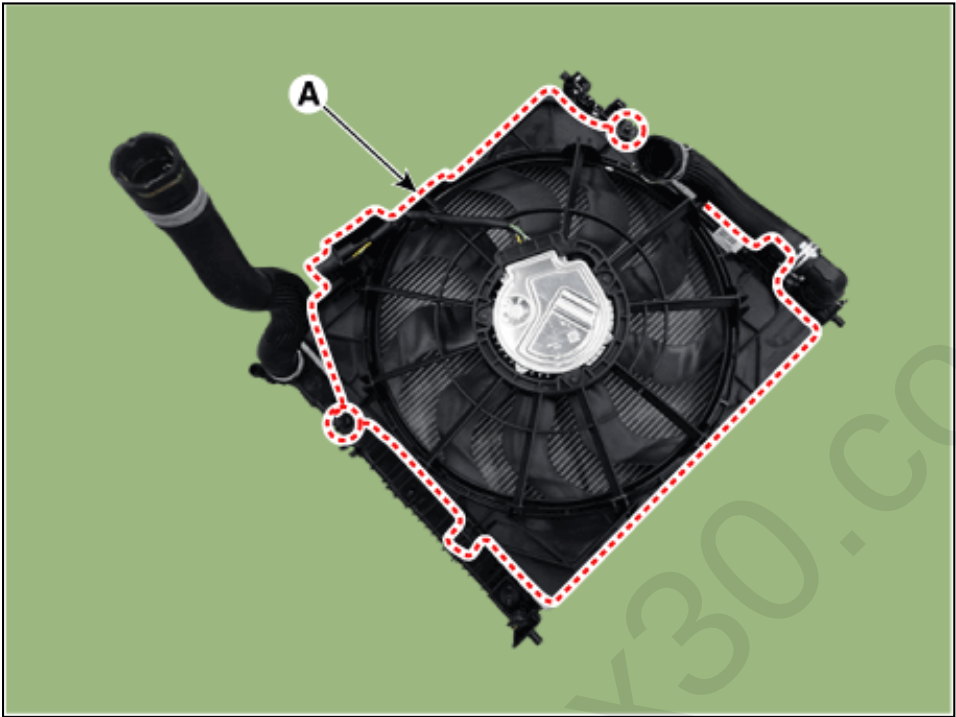
Removal and Installation

Cooling Fan Assembly

1. Disconnect the negative battery terminal.
2. Remove the radiator.
(Refer to Cooling System - "Radiator")
3. Remove the cooling fan (A) from the radiator.

Tightening torque:

4.9 - 7.8 N.m (0.5 - 0.8 kgf.m, 3.6 - 5.8 lb-ft)



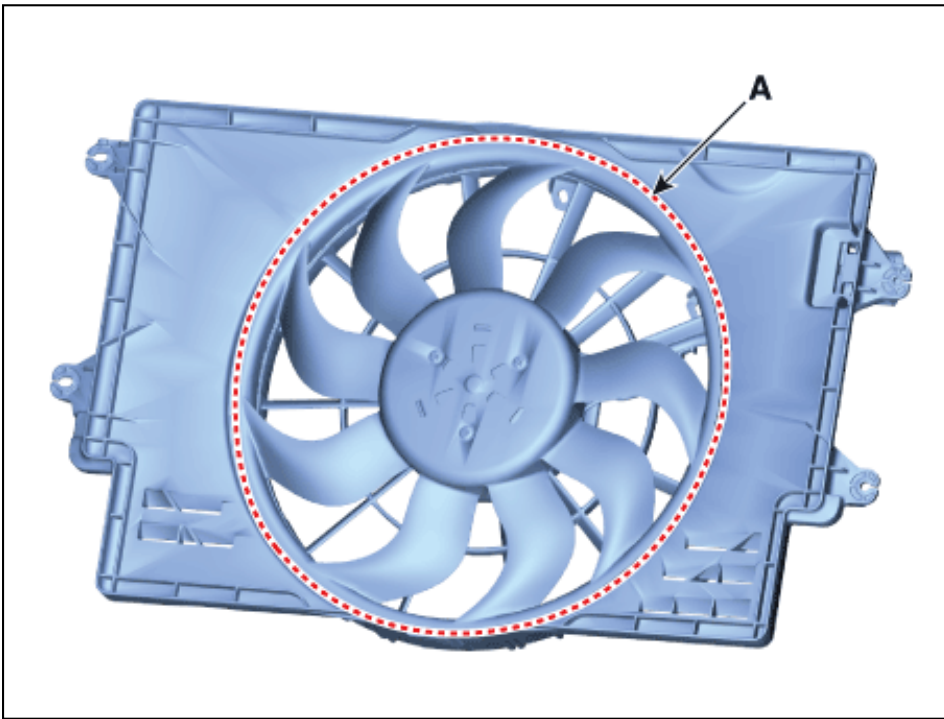
4. Install in the reverse order of removal.

Disassembly

1. Remove the cooling fan (A) from the cooling fan assembly.

Tightening torque :

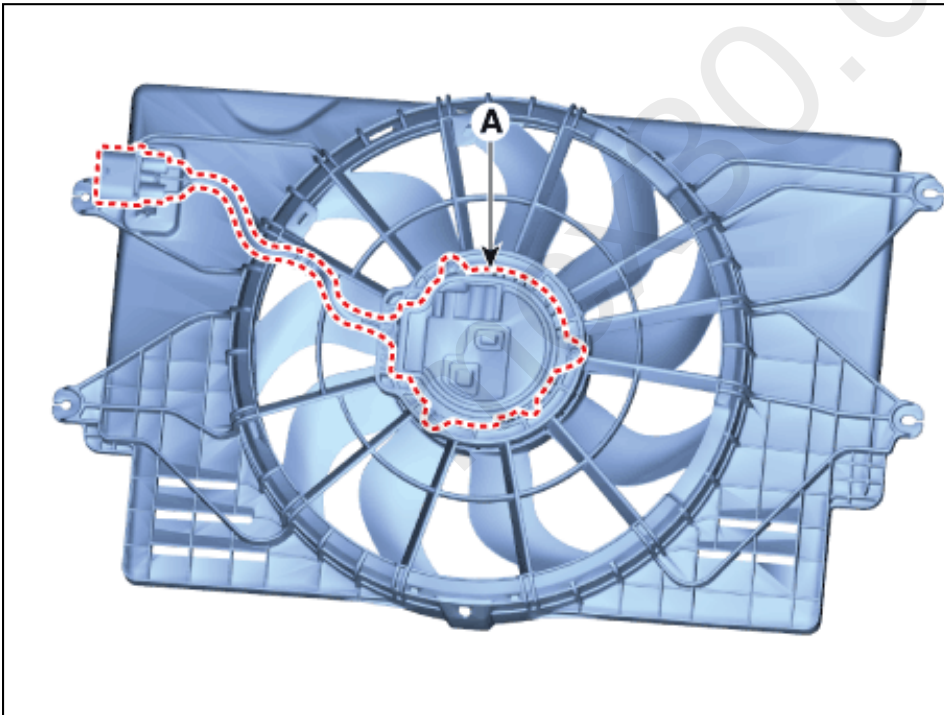
6.86 - 8.82 N.m (0.7 - 0.9 kgf.m, 5.06 - 6.51 lb-ft)



2. Remove the fan motor (A) from the cooling fan shroud.

Tightening torque :

8.83 - 10.79 N.m (0.9 - 1.1 kgf.m, 6.51 - 7.96 lb-ft)



3. Install in the reverse order of removal.

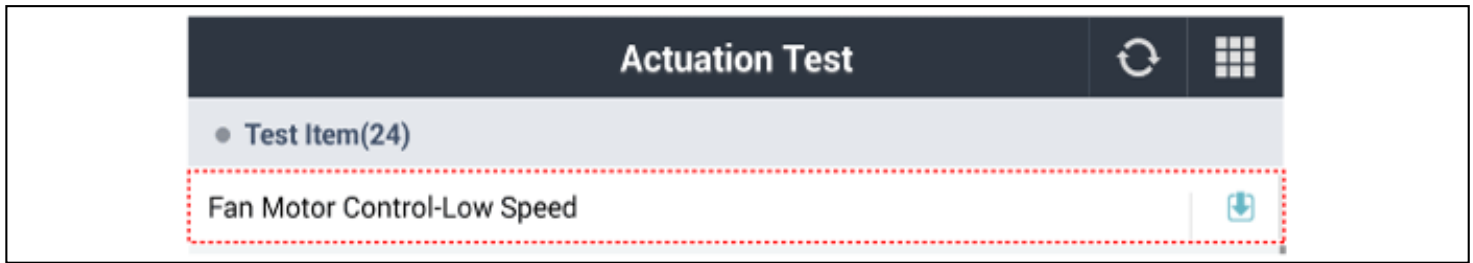
Inspection

Fan motor

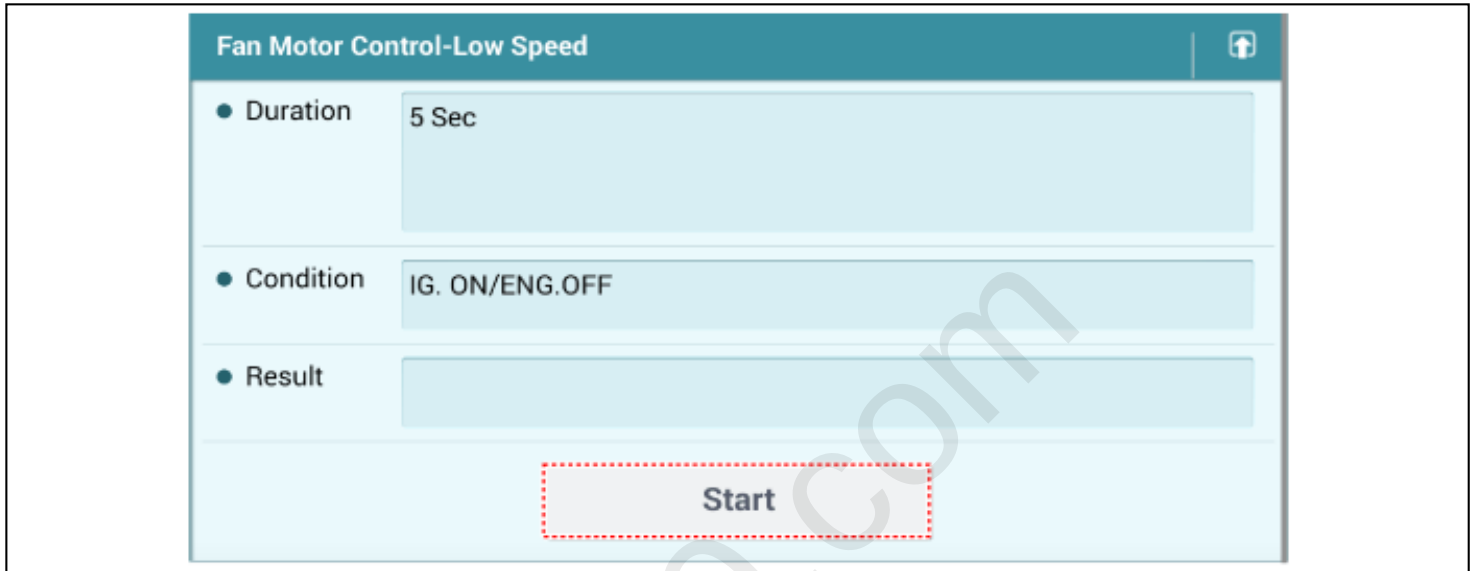
1. Turn ignition switch "OFF" and connect the diagnostic tool to the Data Link Connector.
2. With the gear shift in P (Park) position and ignition switch "ON" (LED of the Power button illuminates in Red), select the "force drive" function.

3. Force drive the cooling fan motor.

(1) Start the "Fan motor low speed" of the force drive function.



(2) Press the start button and force drive for 5 seconds.



(3) Visually check the operation of the cooling fan.

Removal and Installation

1. Disconnect the negative battery terminal.
2. Drain the coolant.

(Refer to Cooling System - "Coolant")

3. Remove the front bumper beam.

(Refer to Body(Interior and Exterior) - "Front Bumper Beam Assembly")

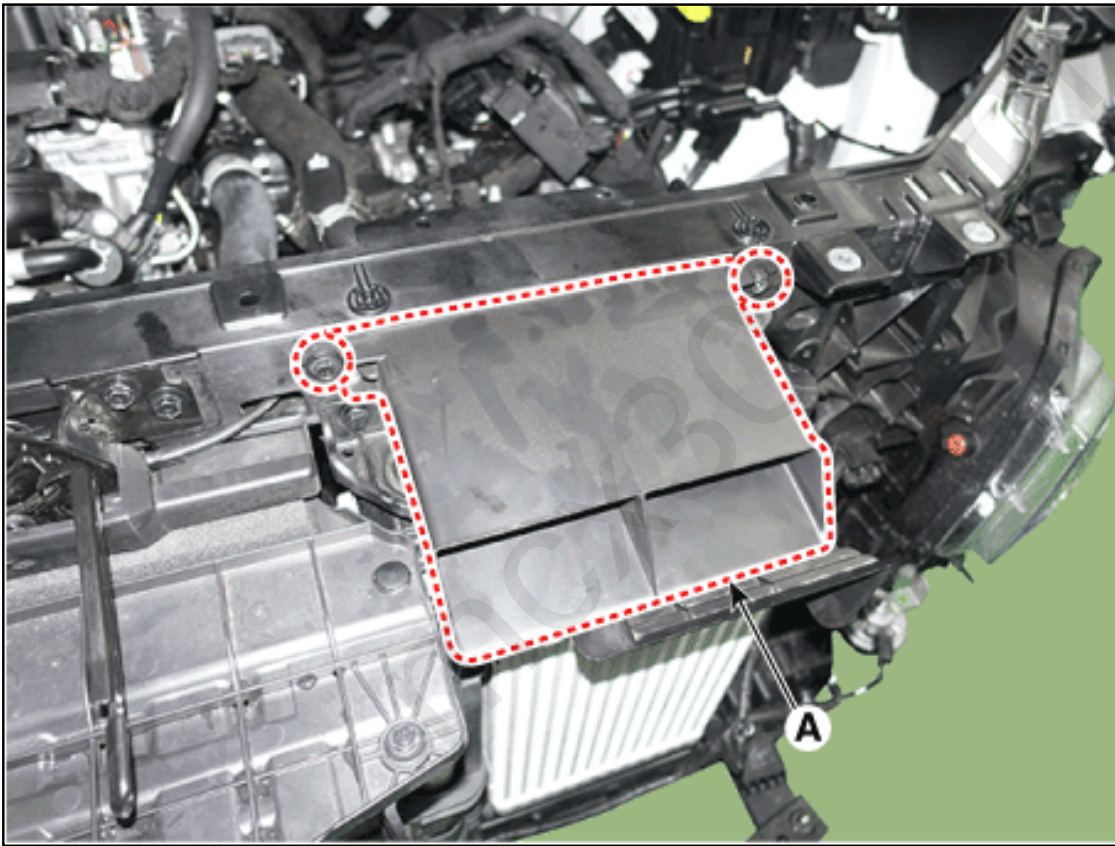
4. Remove the hood latch.

(Refer to Body (Interior and Exterior) - "Hood Latch")

5. Remove the air intake shield (A).

Tightening torque :

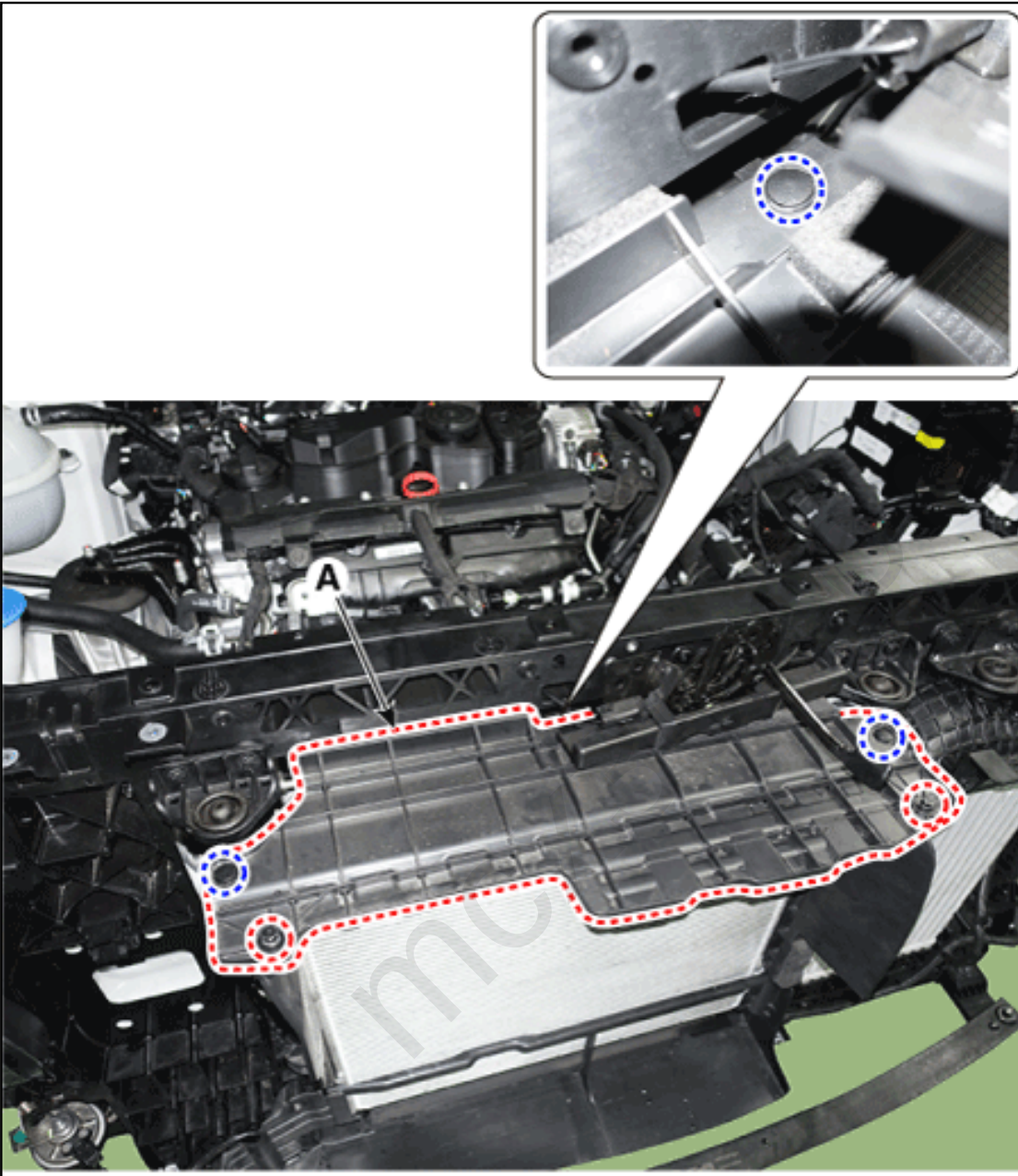
7.8 - 11.8 Nm (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)



6. Remove the radiator upper air guard (A).

Tightening torque :

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

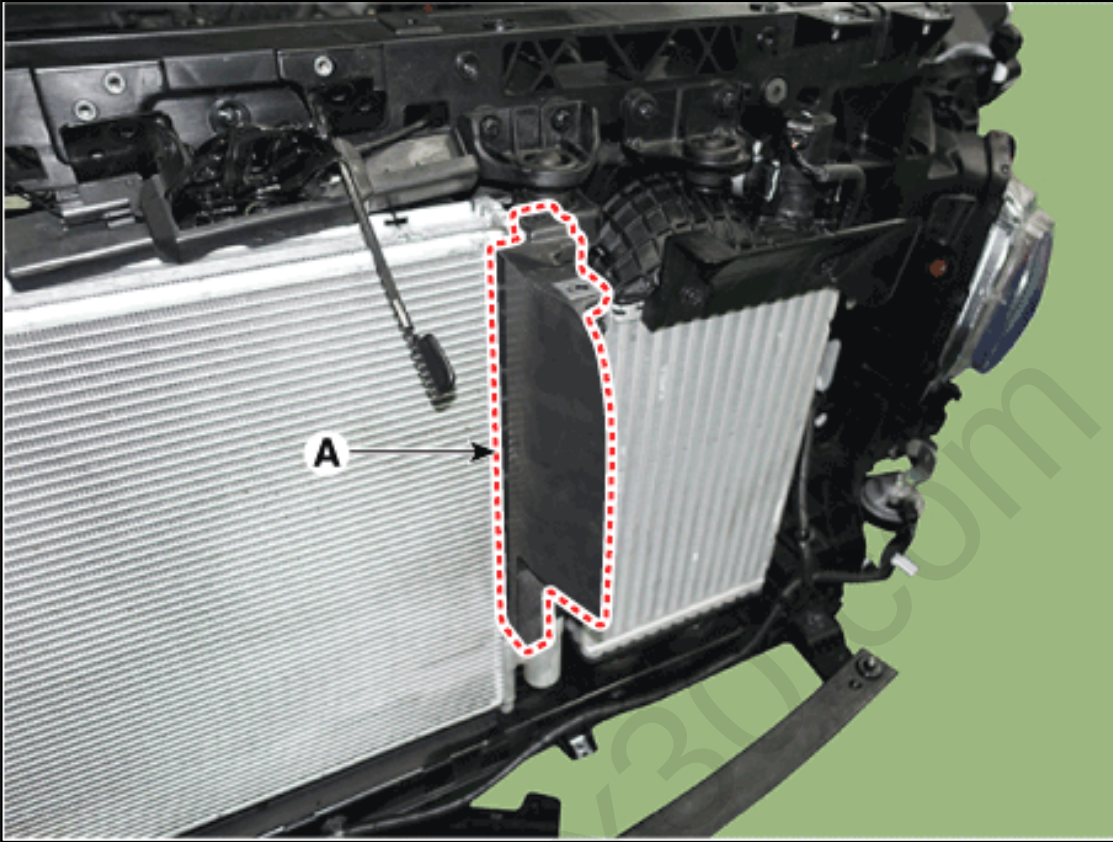


7. Remove the radiator side air guard (A).

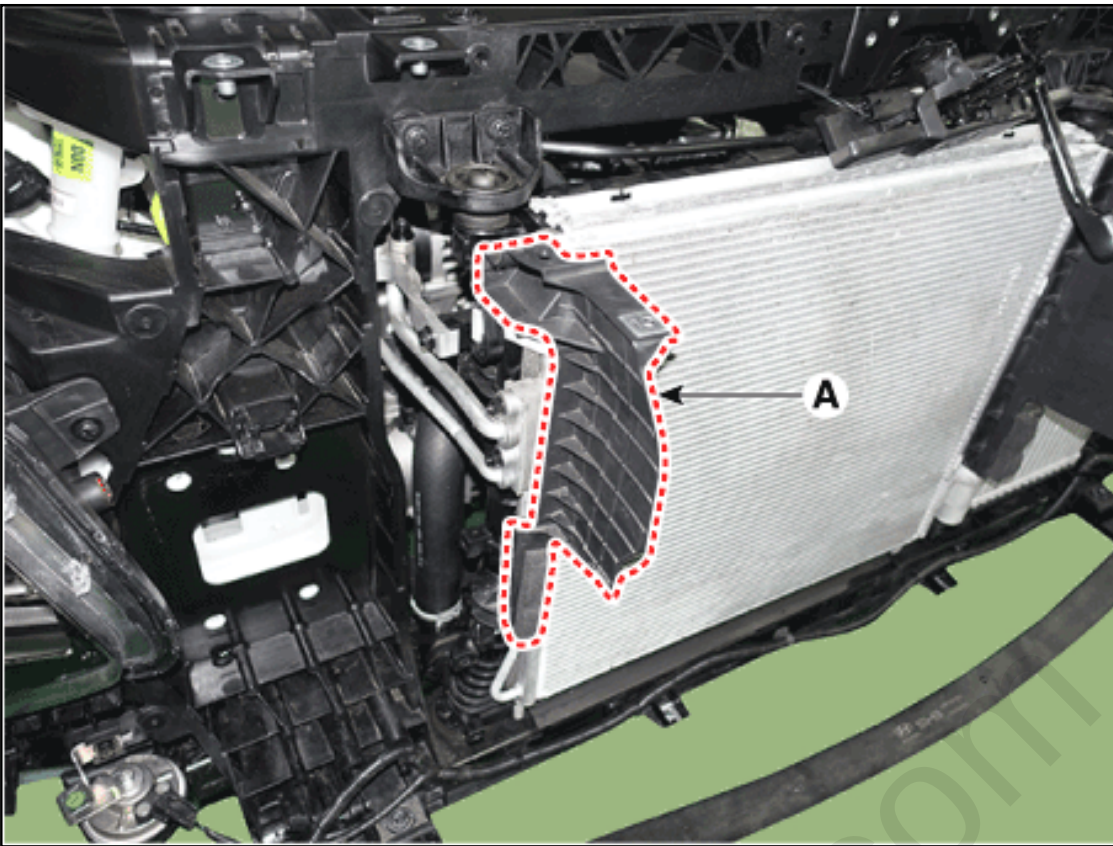
Tightening torque :

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

[LH]



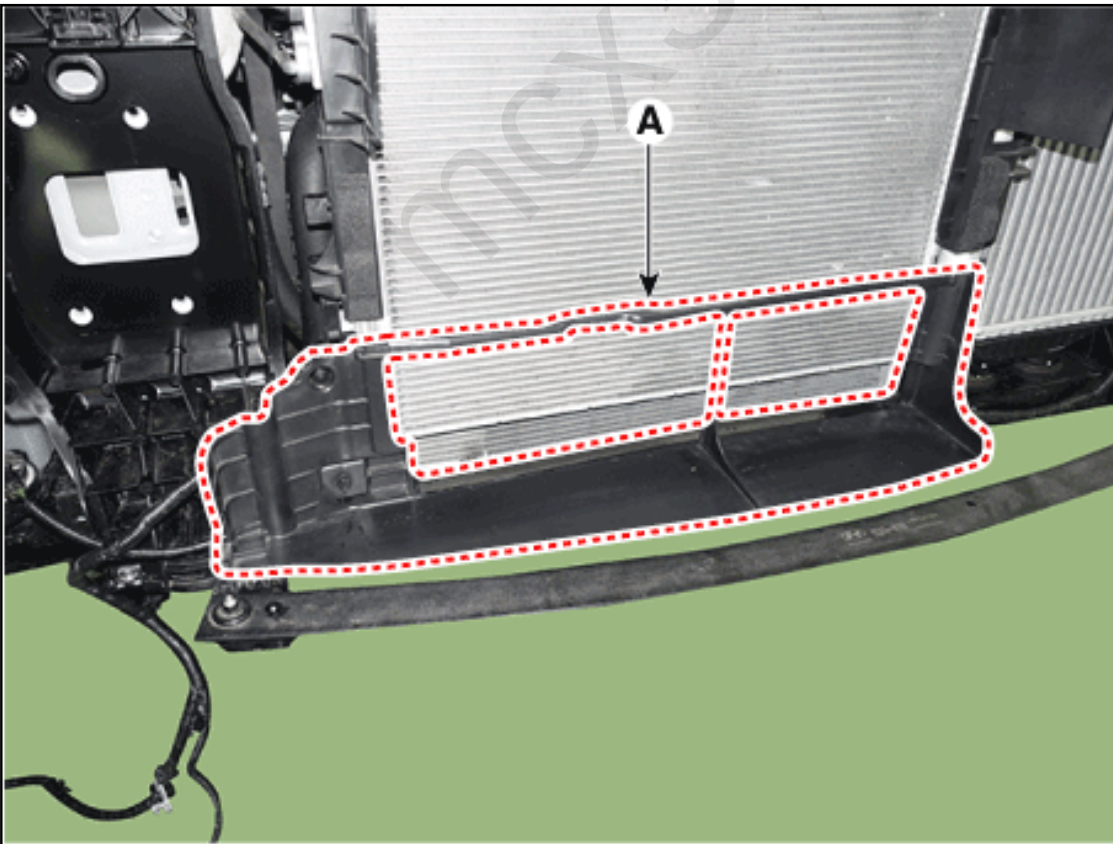
[RH]



8. Remove the air dam (A).

Tightening torque :

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



9. Remove the radiator upper mounting bracket (A).

Tightening torque :

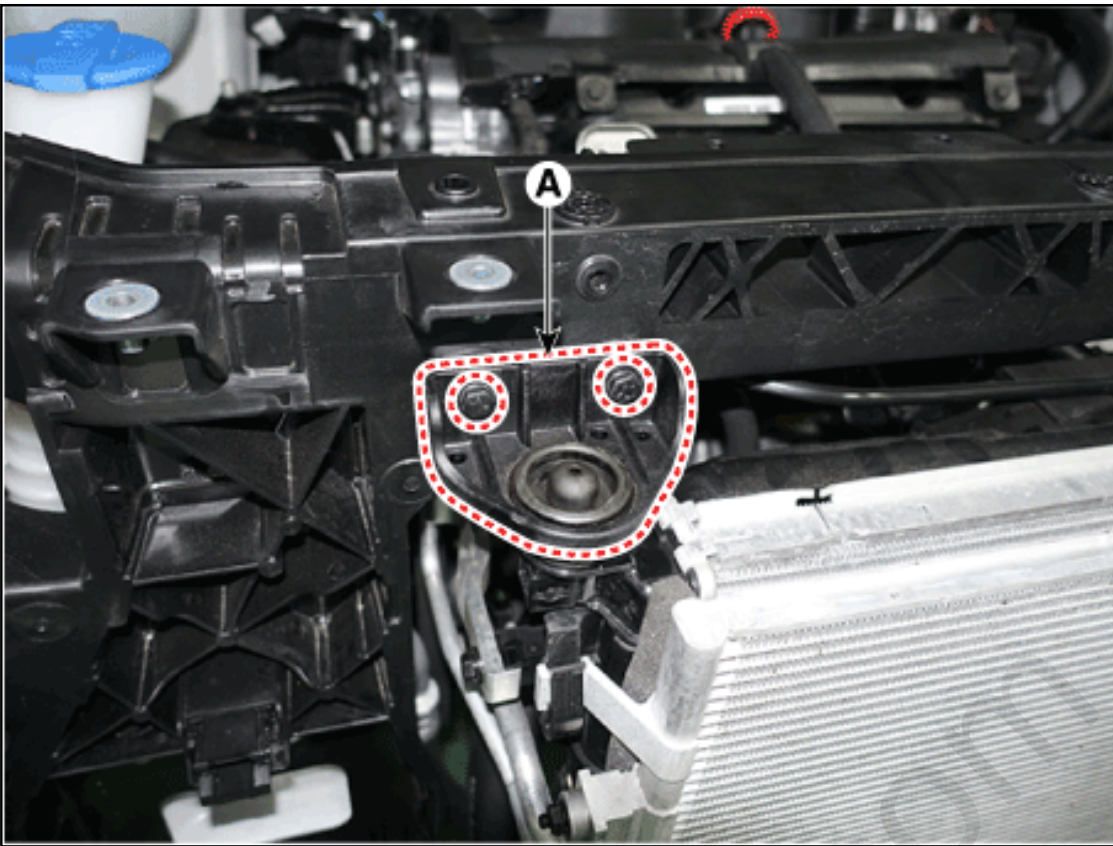
7.8 - 11.8 Nm (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)

[RH]

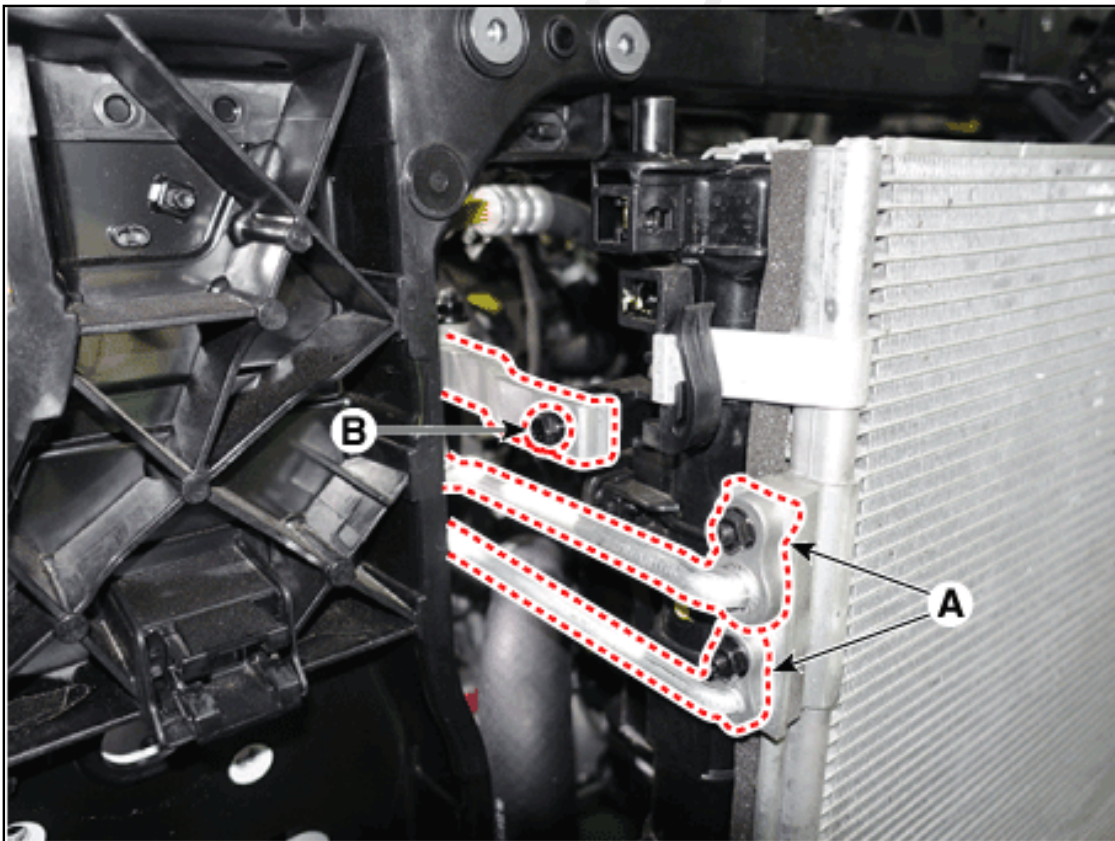


[LH]

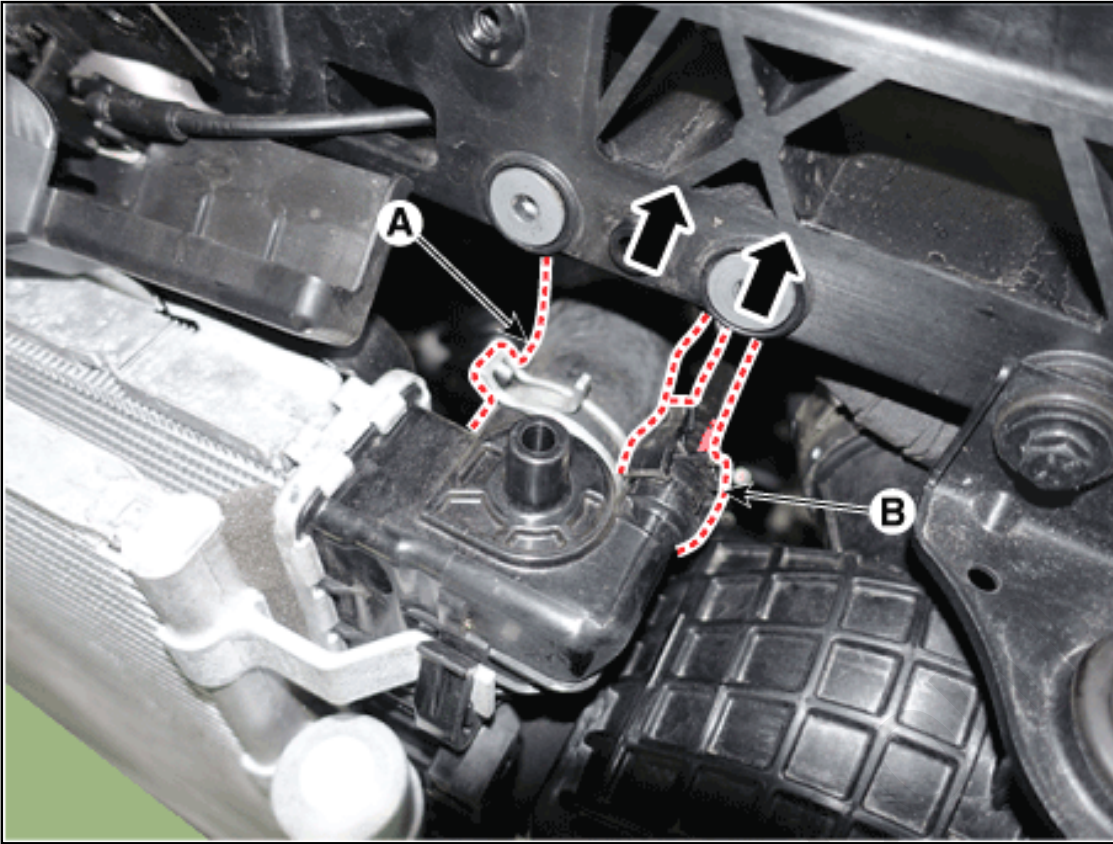
mck



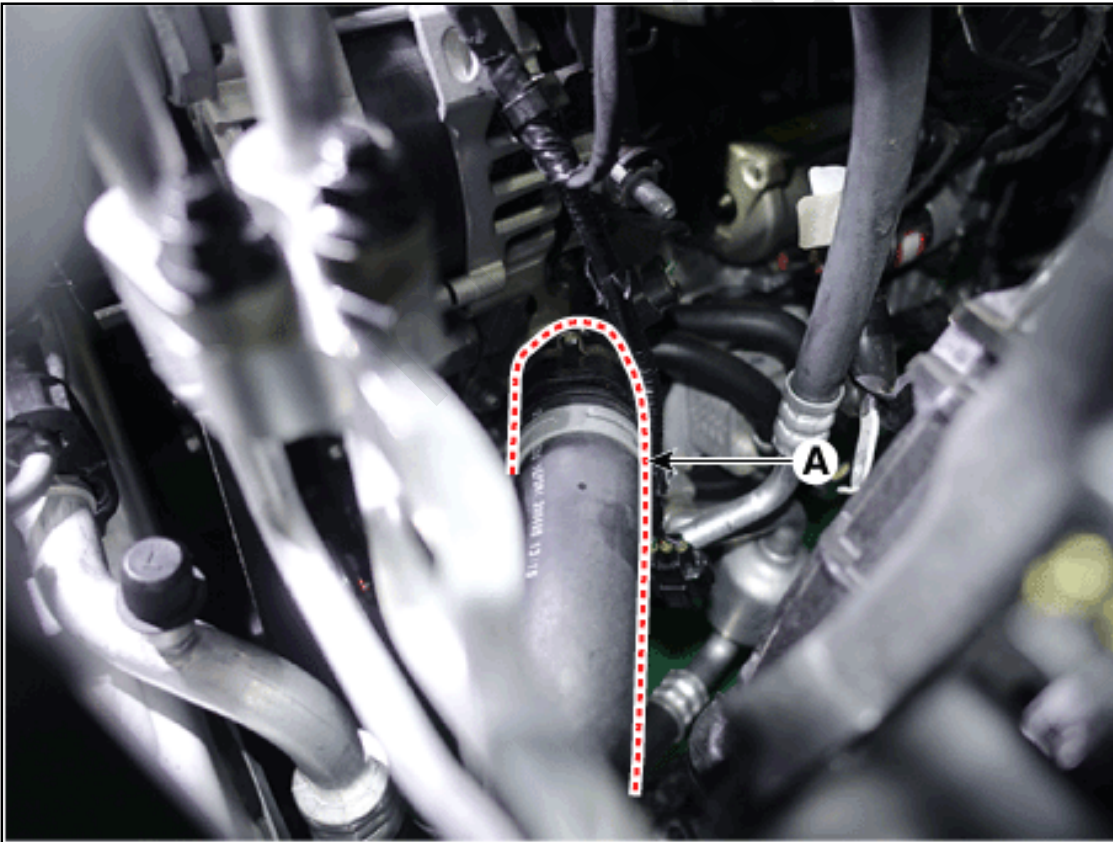
10. Air conditioner refrigerant is recovered by recovery/regeneration/charger.
(Refer to Heating,Ventilation And Air Conditioning - "Air conditioning System")
11. Remove the RH head lamp assembly.
(Refer to Body Electrical System - "Lighting System")
12. Loosen the refrigerant line pipe (A) mounting nuts and bracket mounting bolt (B).



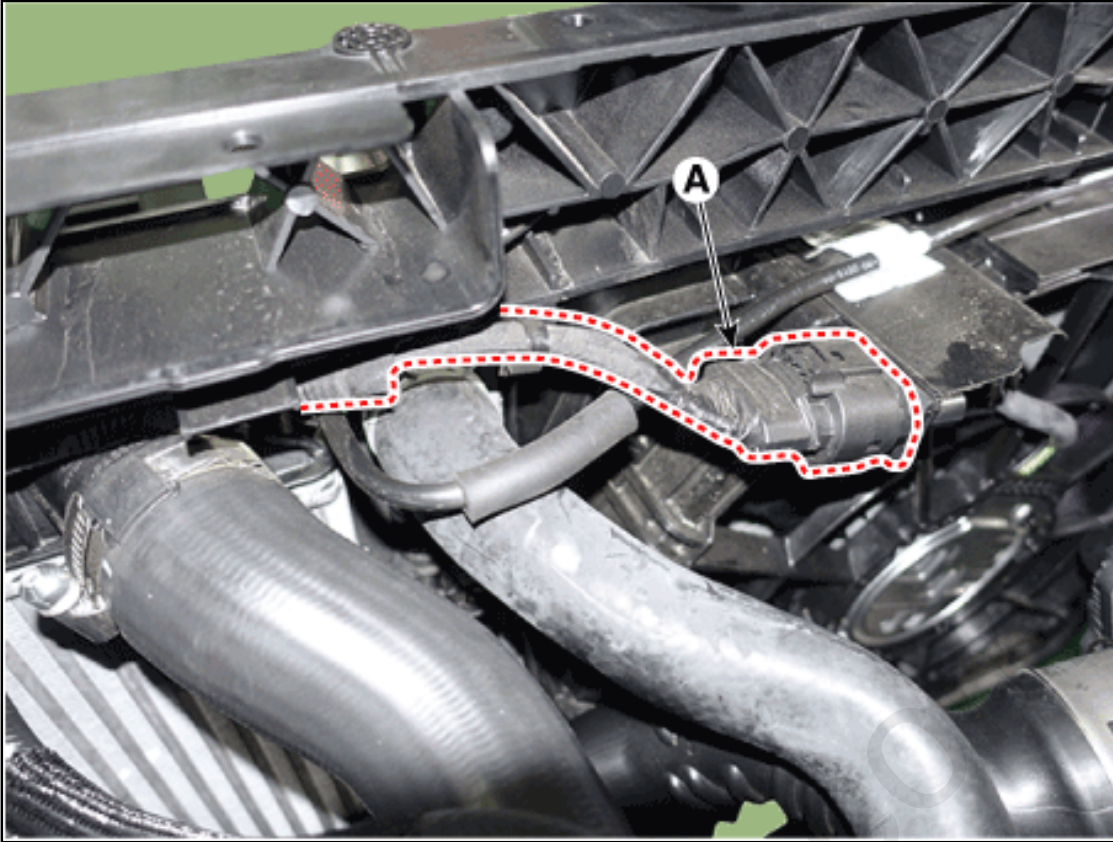
13. Disconnect the radiator upper hose (A) and degassing hose (B) from radiator.



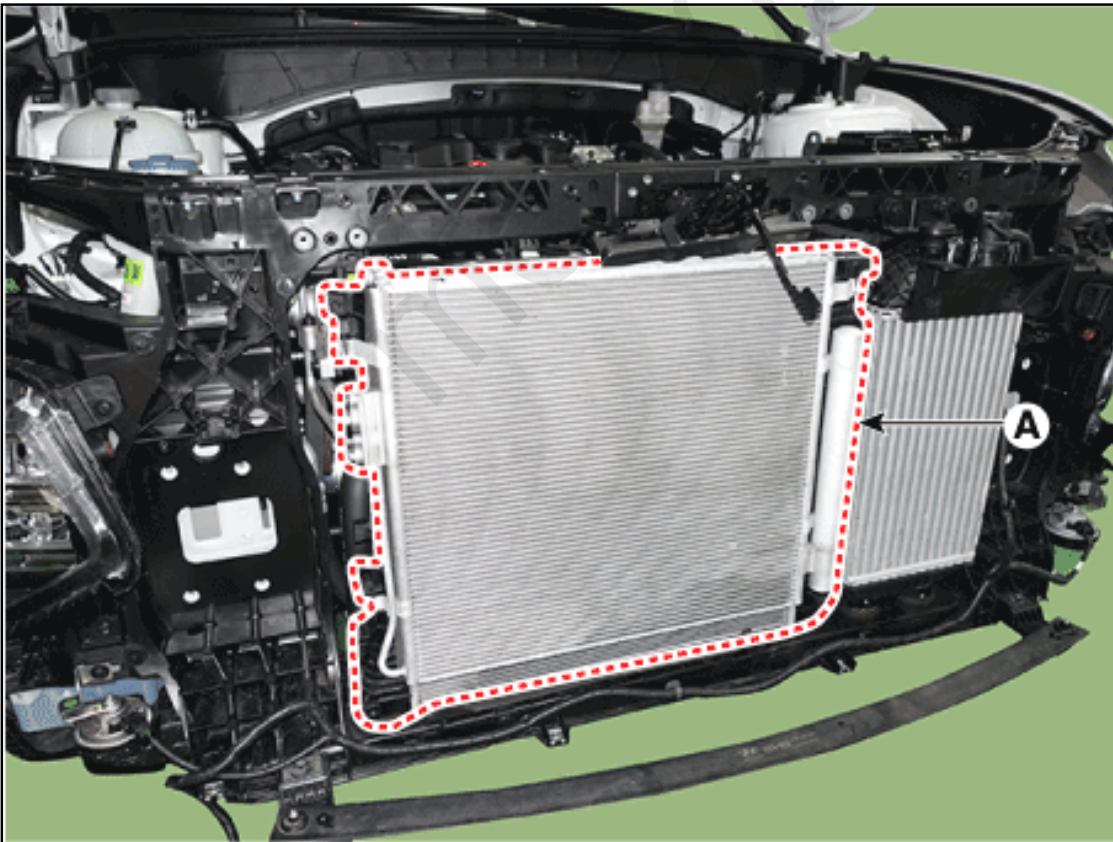
14. Disconnect the radiator lower hose (A) from the inlet fitting.



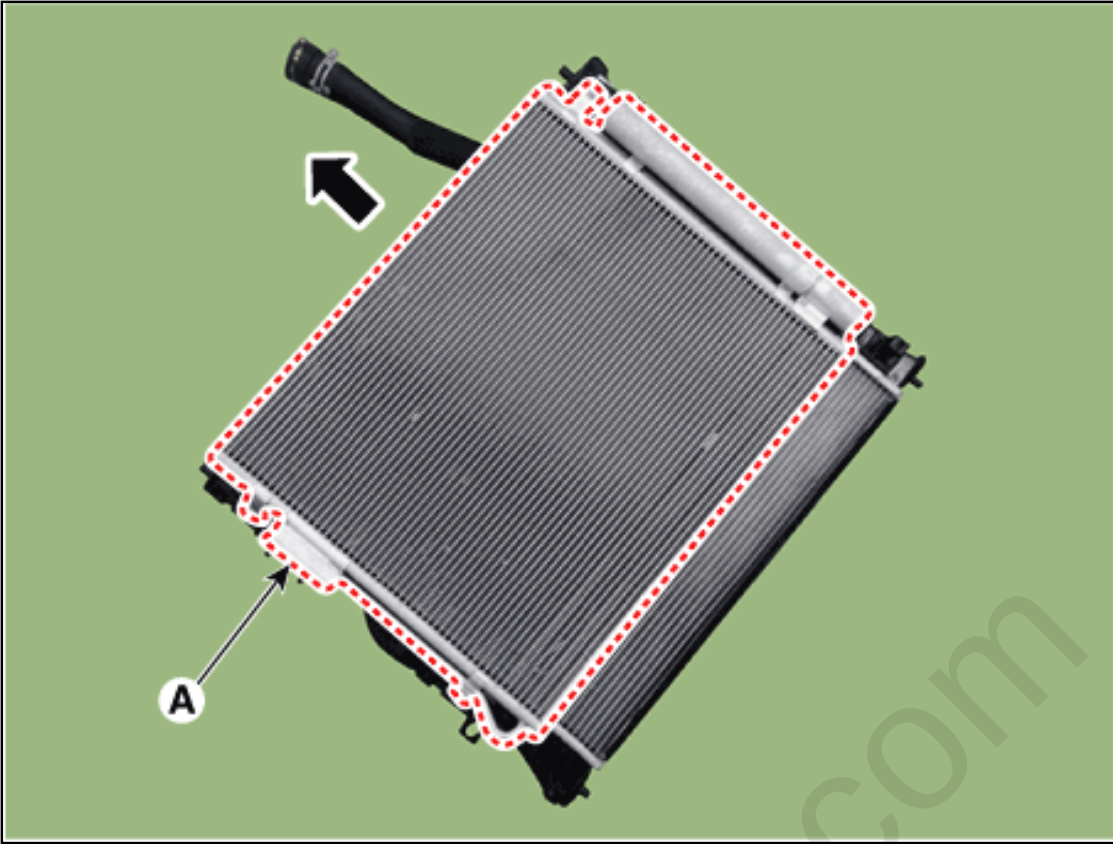
15. Disconnect the cooling fan connector (A).



16. Remove the radiator assembly (A) from the vehicle.



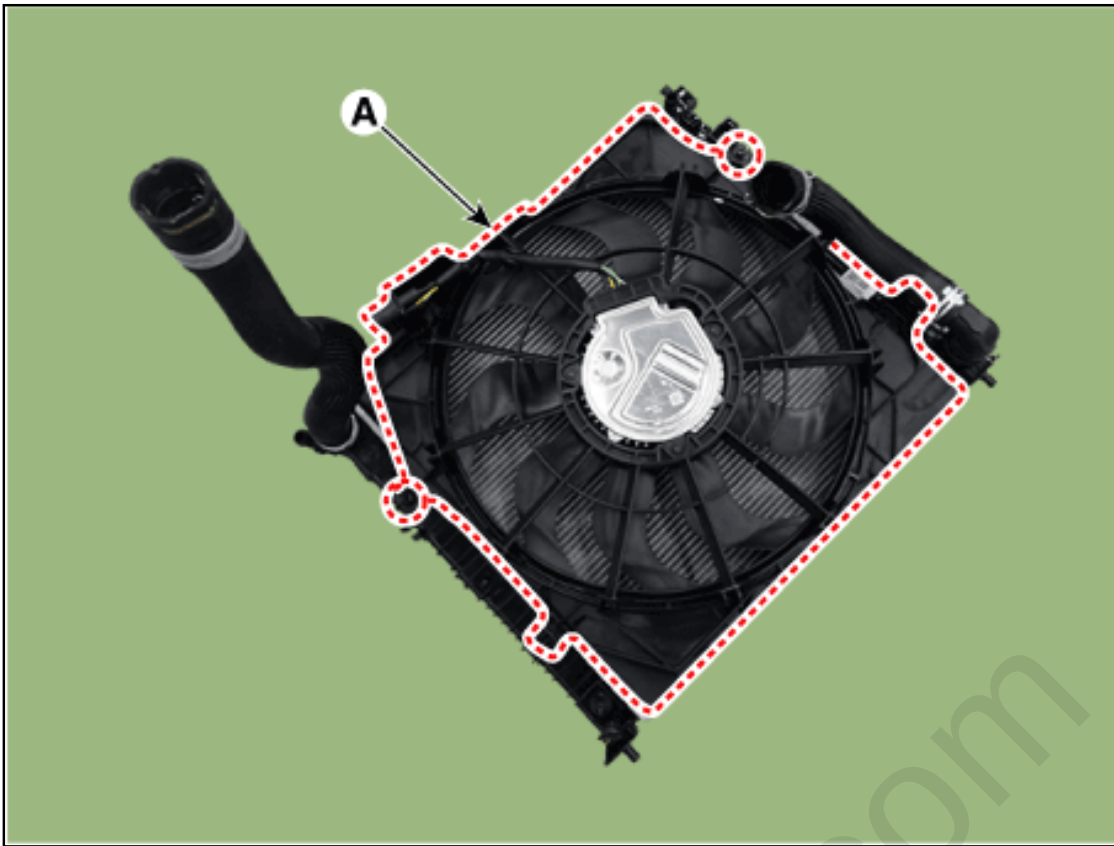
17. Remove the condenser (A) by push up from the radiator.



18. Remove the cooling fan (A).

Tightening torque :

4.9 - 7.8 N.m (0.5 - 0.8 kgf.m, 3.6 - 5.8 lb-ft)



19. Install in the reverse order of removal.

20. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

21. Start engine and check for leaks.

Inspection

Radiator Leakage Test

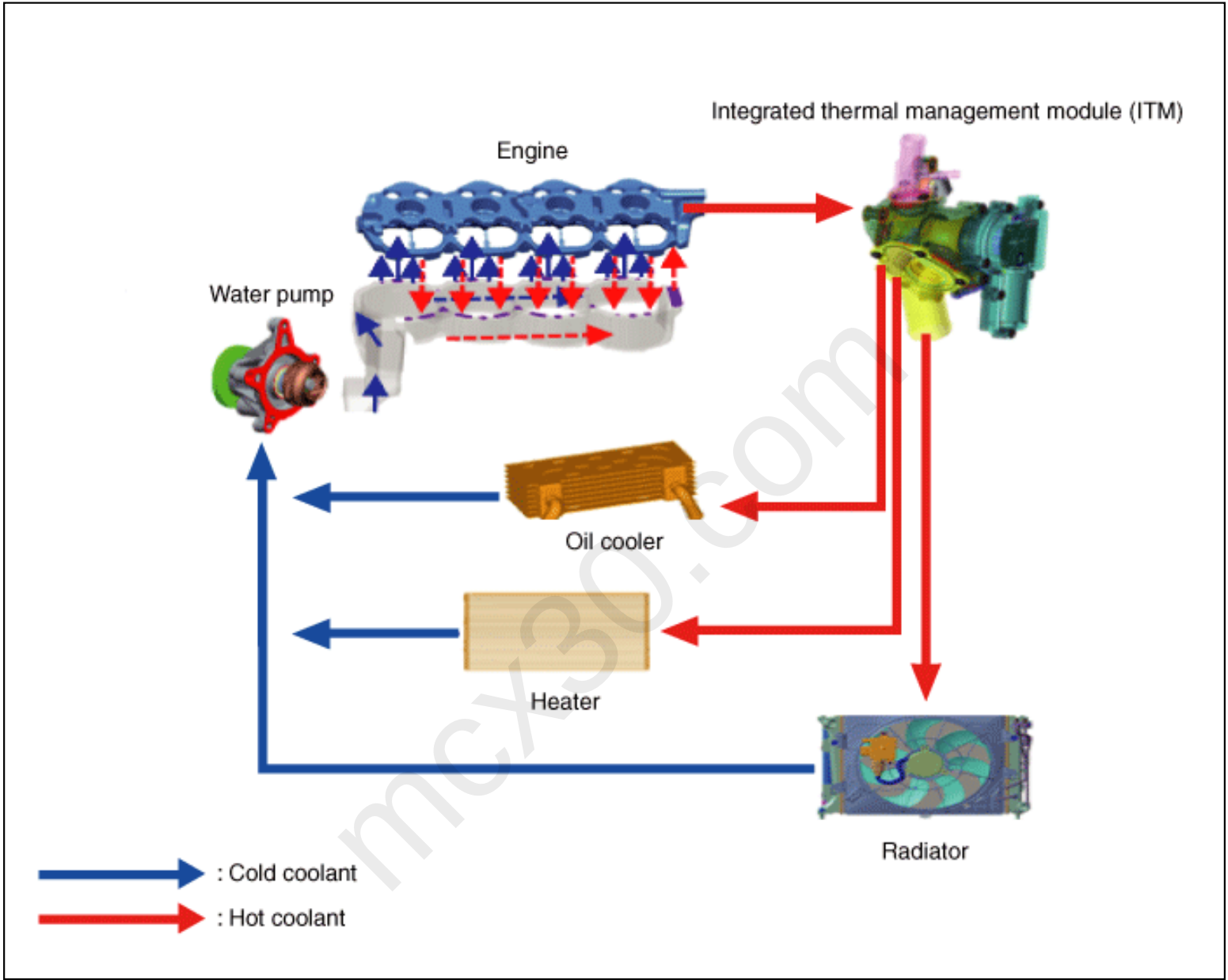
1. Wait for the engine to cool. Carefully remove the coolant reservoir tank cap and fill the radiator with engine coolant. Then, install it on the pressure tester.
2. Apply a pressure tester to the radiator and apply a pressure of 125.3 - 154.7 kPa (1.28 - 1.58 kgf/cm², 22.44 - 18.17 psi).
3. Inspect for engine coolant leaks and a drop in pressure.
4. Remove the tester and reinstall the radiator cap.

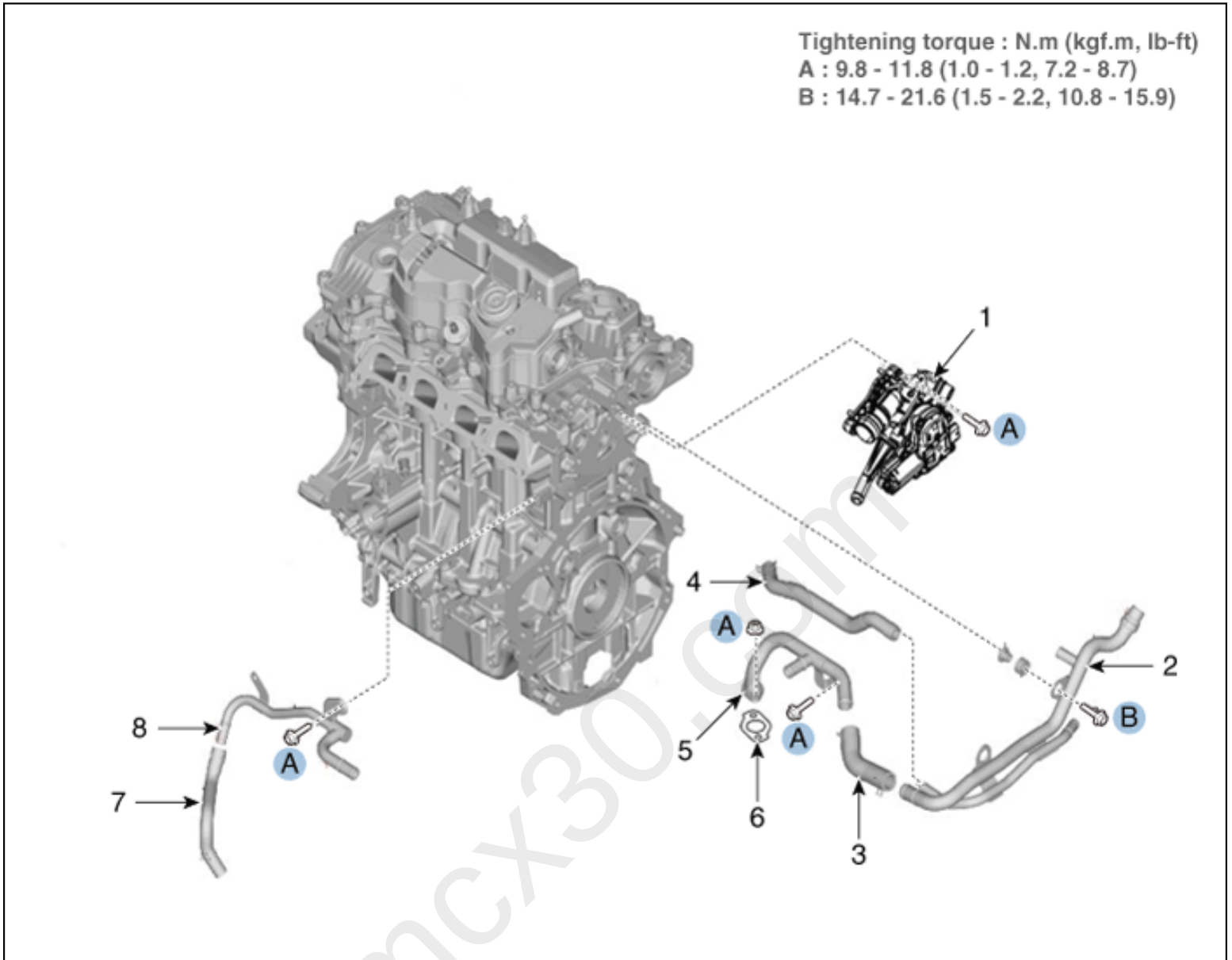


- Check for engine oil in the coolant and/or coolant in the engine oil.

Description

Integrated thermal management module (ITM) is a device that controls the coolant flow rate according to coolant temperature. At initial startup, the integrated thermal management module (ITM) quickly warms up the engine by controlling the flow of the coolant and this fast warm-up helps improve the fuel efficiency. When the coolant temperature rises, the integrated thermal management module (ITM) adjusts the cooling water temperature by controlling the valves to regulate the flow of coolant through a radiator or heater.





1. Integrated thermal management module (ITM)
2. Heater pipe
3. Heater hose
4. Turbo charger coolant hose

5. Heater pipe A
6. Heater pipe A gasket
7. Oil cooler hose A
8. Oil cooler pipe

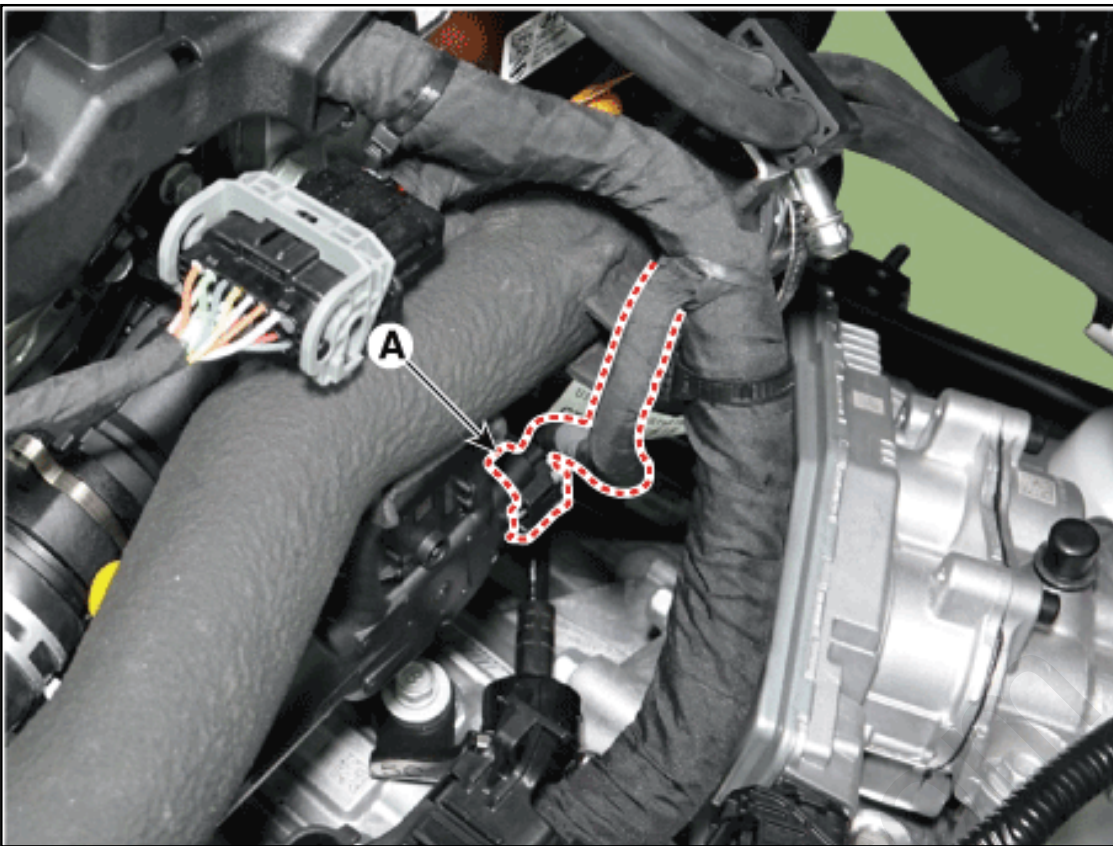
Removal and Installation

Integrated Thermal Management Module (ITM)

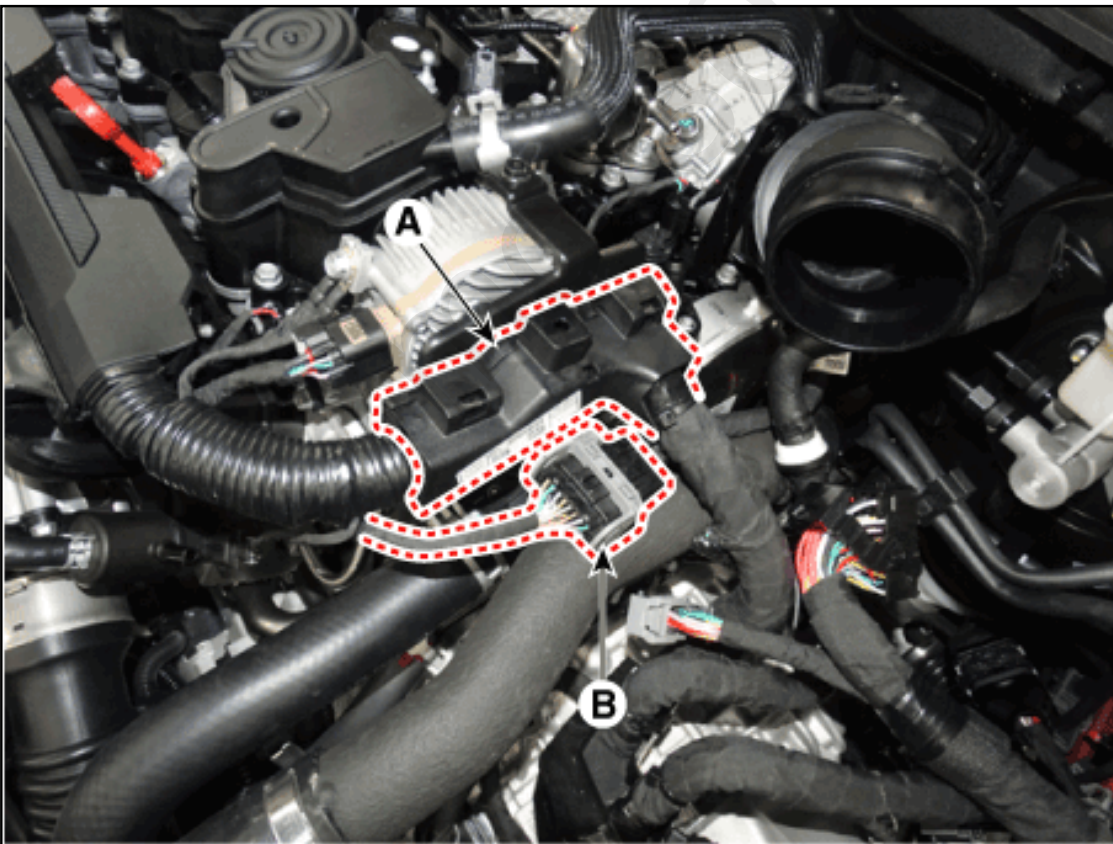


- Be careful that static electricity and other voltages are not applied to the integrated thermal management module (ITM).
- Do not bring anything with magnetism, such as a magnet, close to the integrated thermal management module (ITM).
- When disconnecting the integrated thermal management module (ITM) connector, make sure that there is no power to the engine and other components.
- When connecting the integrated thermal management module (ITM) connector, water or oil must be completely removed from the connector and no foreign matters should be entered.
- When replacing the integrated thermal management module (ITM) connector, be sure to use the specified connector.

1. Disconnect the battery negative terminal.
2. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
3. Drain the coolant.
(Refer to Cooling System - "Coolant")
4. Remove the air duct and air cleaner assembly.
(Refer to Intake and Exhaust System - "Air Cleaner")
5. Remove the battery and battery tray.
(Refer to Engine Electrical System - "Battery")
6. Disconnect the integrated thermal management module (ITM) connector (A).



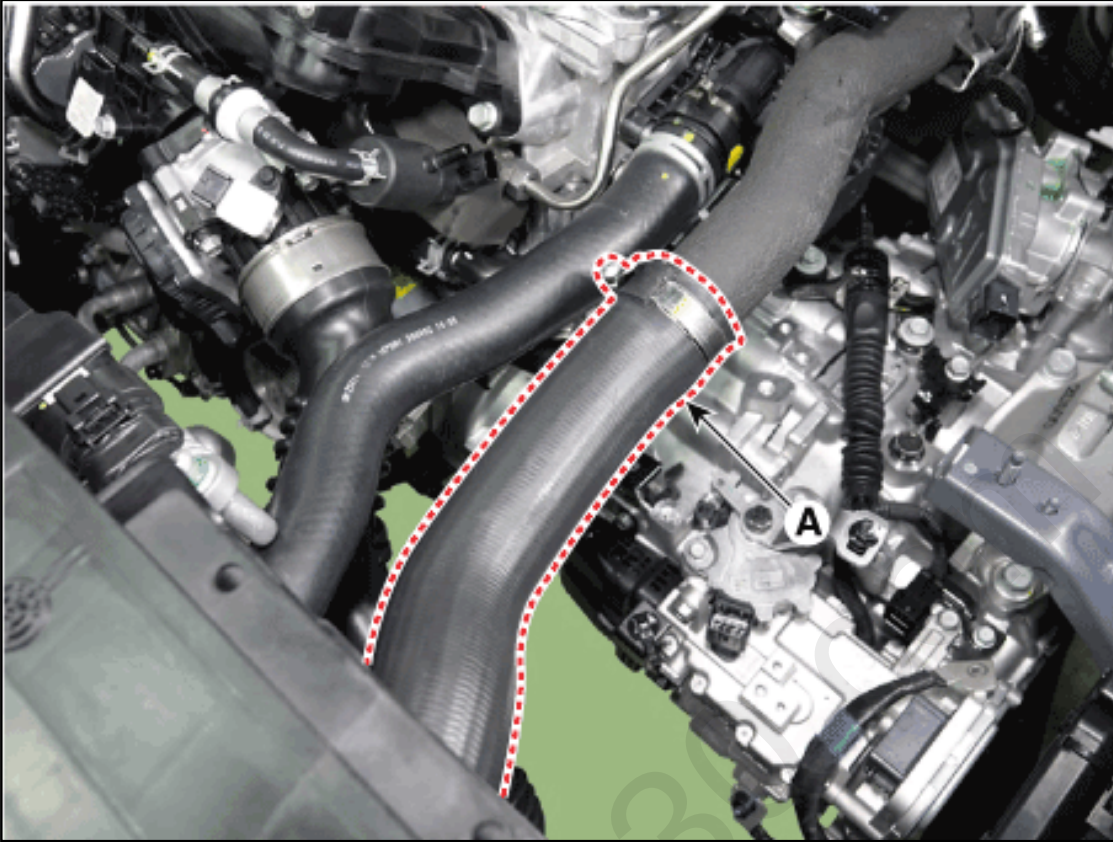
7. Separate the main wiring protector (A) from bracket, and then Disconnect the connector (B) from the intercooler inlet pipe.



8. 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)

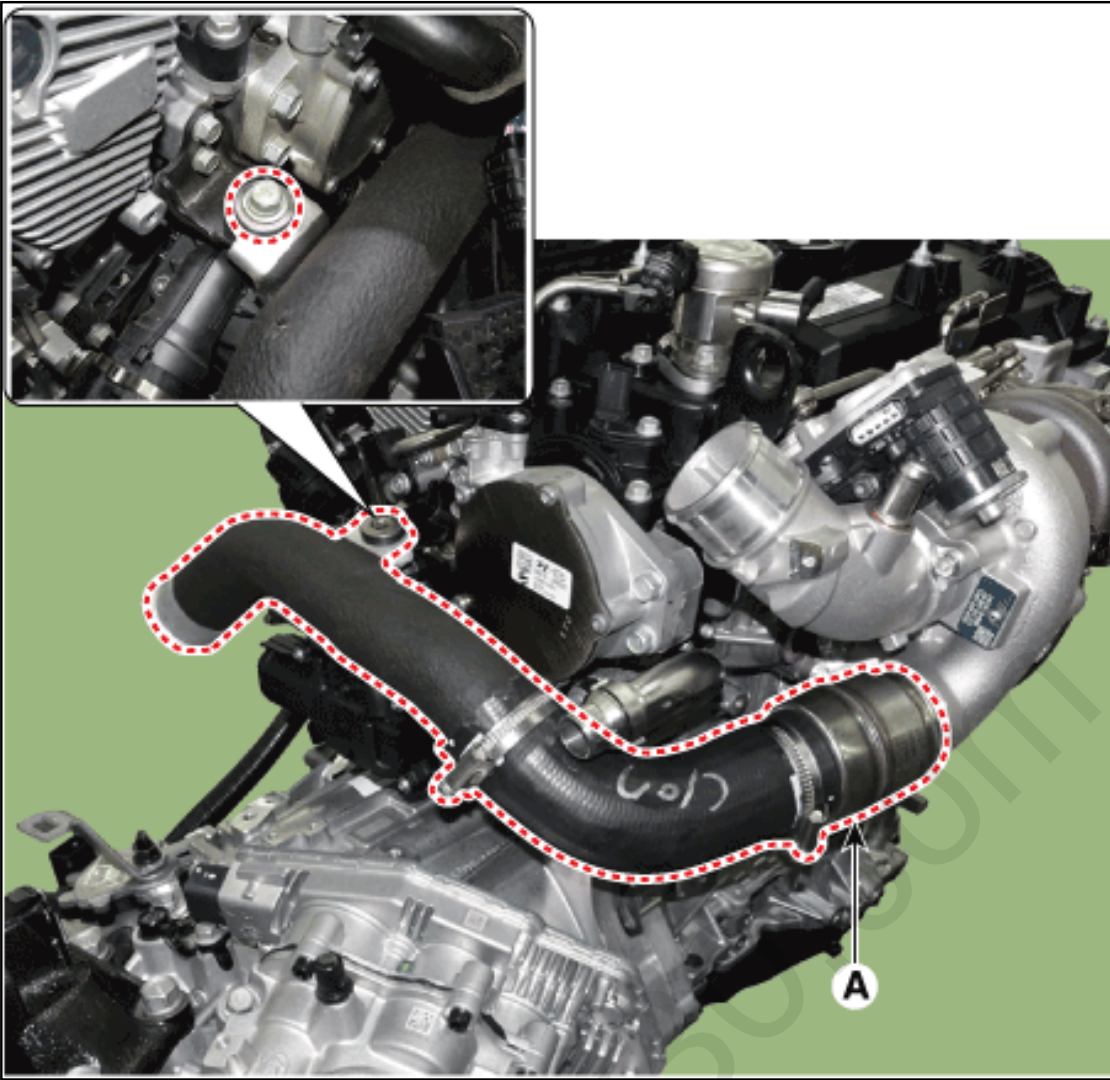


- Insert the hose until it reaches the end of stopper.

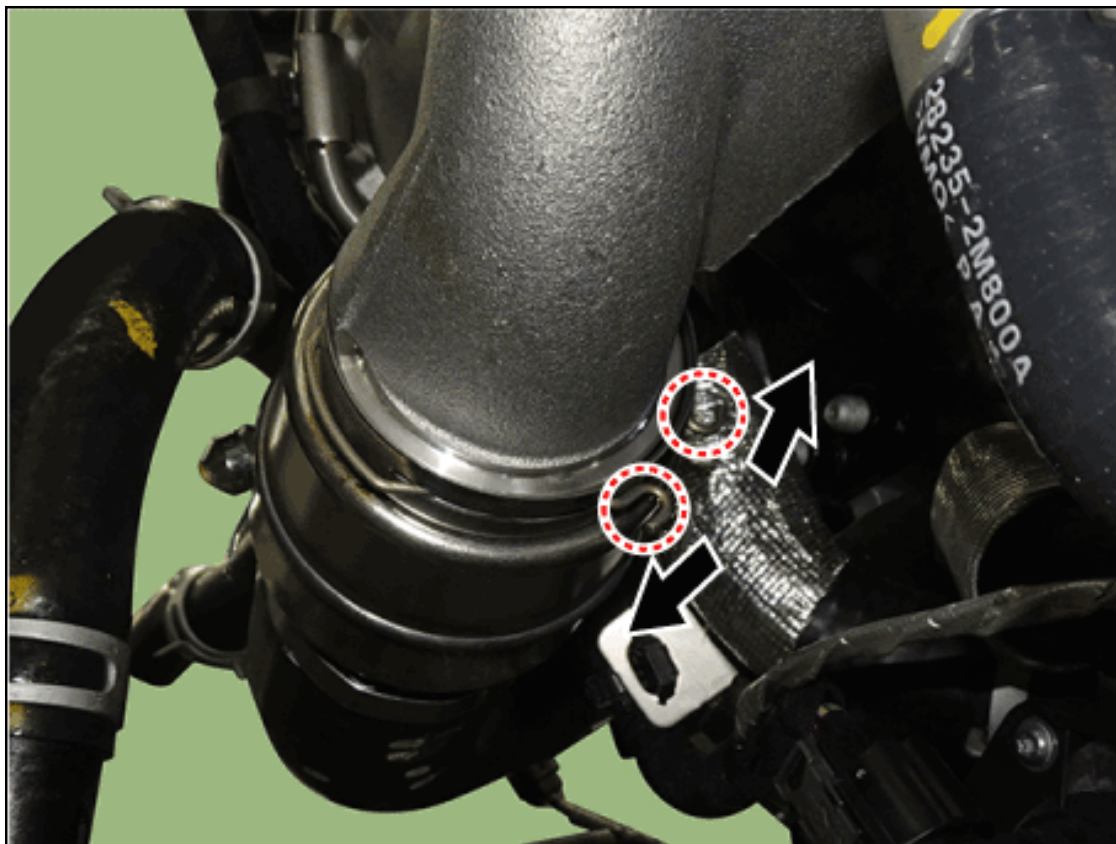
9. Remove the resonator assembly and intercooler pipe (A).

Tightening torque :

Mounting bolt : 18.6 - 23.5 N.m (1.9 - 2.4 kgf.m, 13.7 - 17.4 lb-ft)

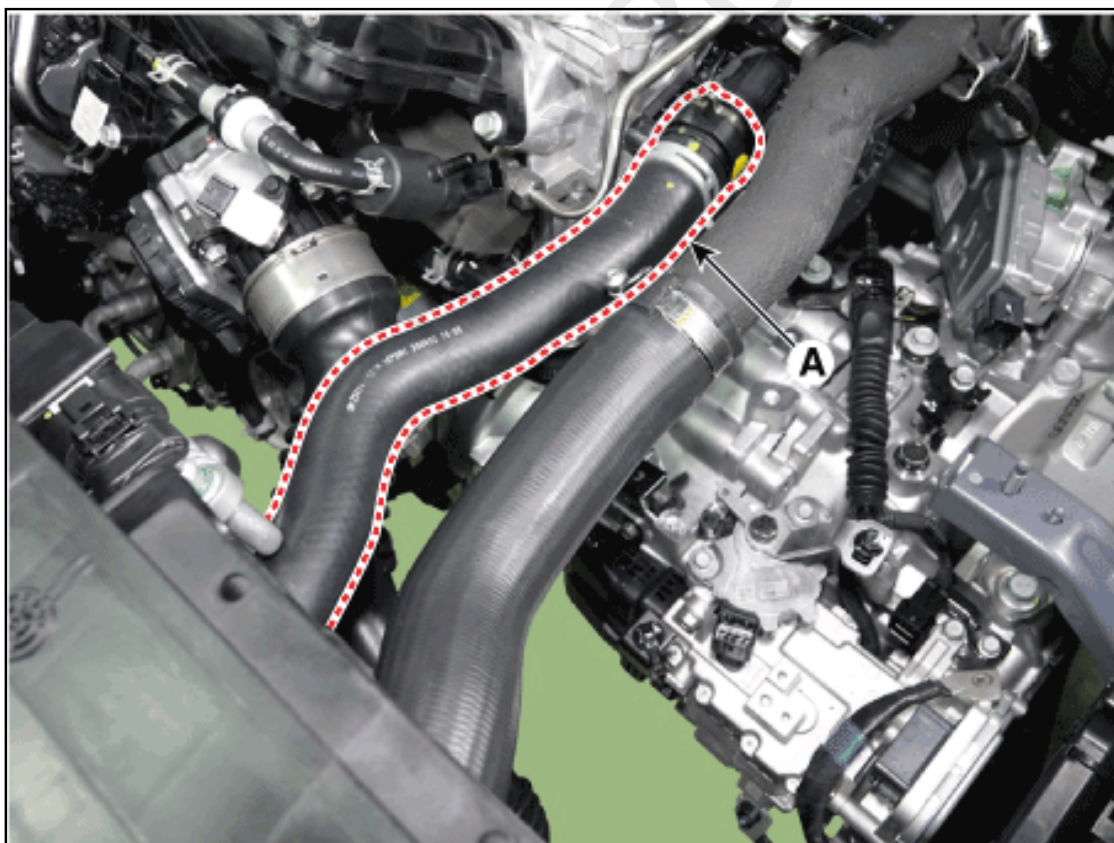


- When disconnecting the resonator assembly, pull the quick connector clamp in the direction of the arrow as below.

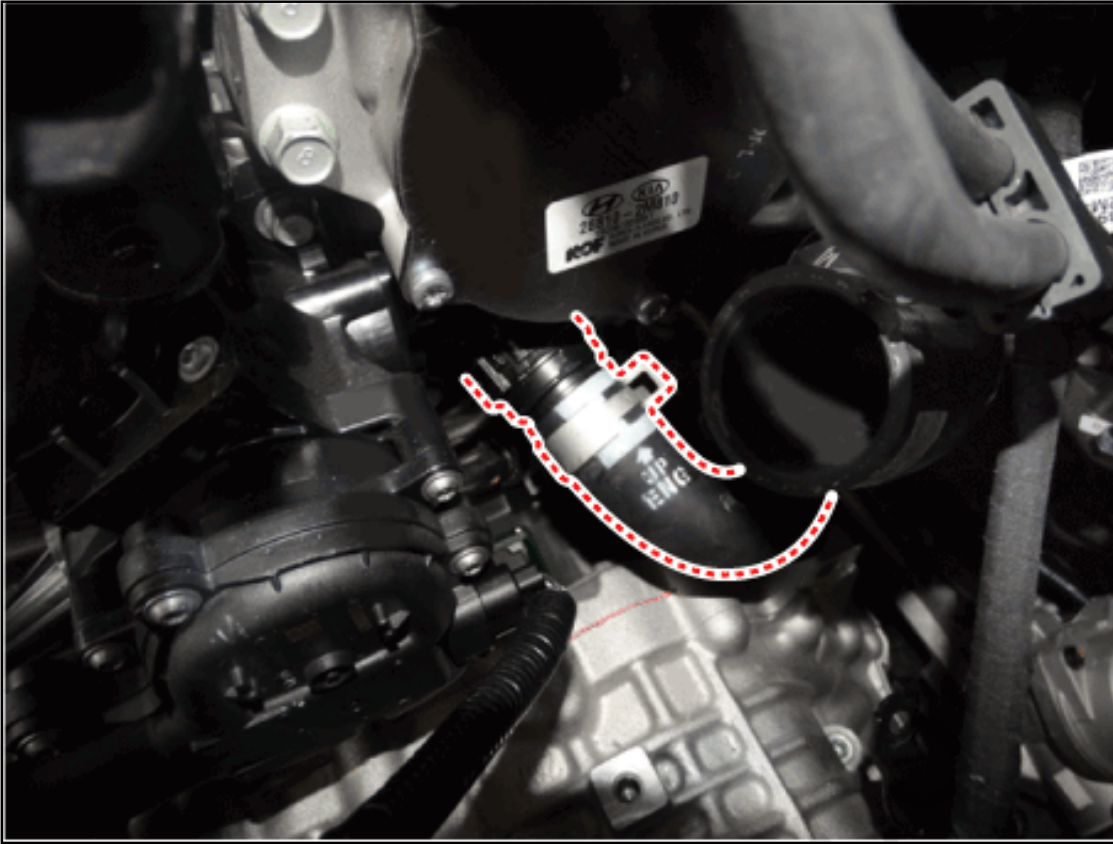


- When installing the intercooler inlet hose, Match the alignment marks.
- Insert the hose until it reaches the end of stopper.

10. Disconnect the radiator upper hose (A).



11. Disconnect the heater hose (A).



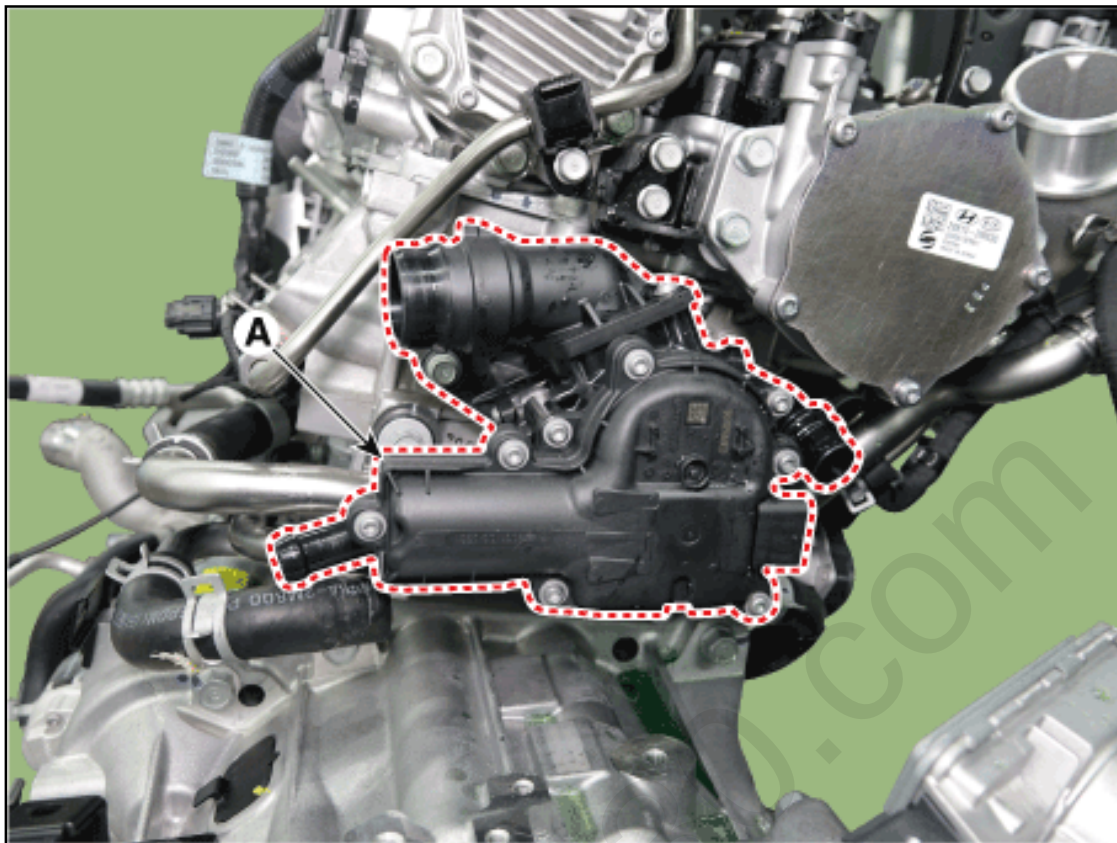
12. Disconnect the oil cooler hose (A).



13. Remove the integrated thermal management module (ITM) (A).

Tightening torque :

9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



14. Install in the reverse order of removal.

15. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



•The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

16. Start engine and check for leaks.

Heater Pipe

1. Disconnect the battery negative 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")

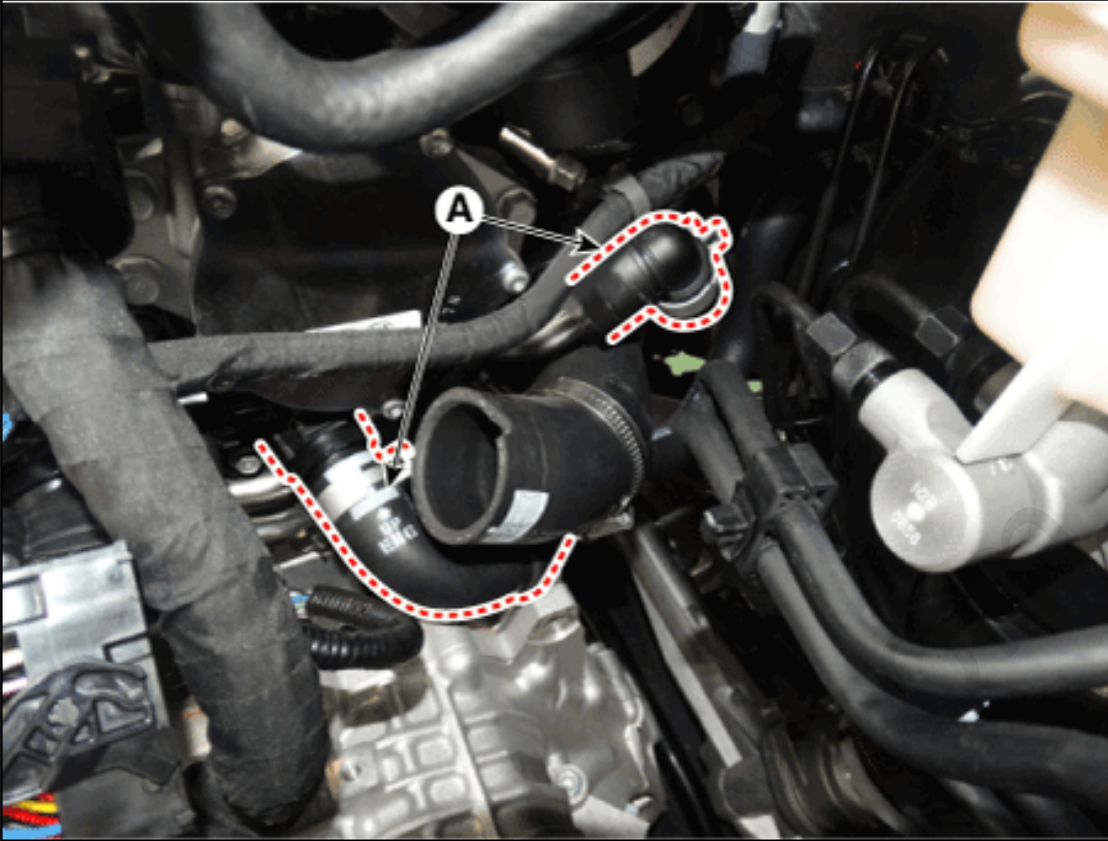
4. Drain the coolant.

(Refer to Cooling System - "Coolant")

5. Remove the air duct and air cleaner assembly.

(Refer to Intake and Exhaust System - "Air Cleaner")

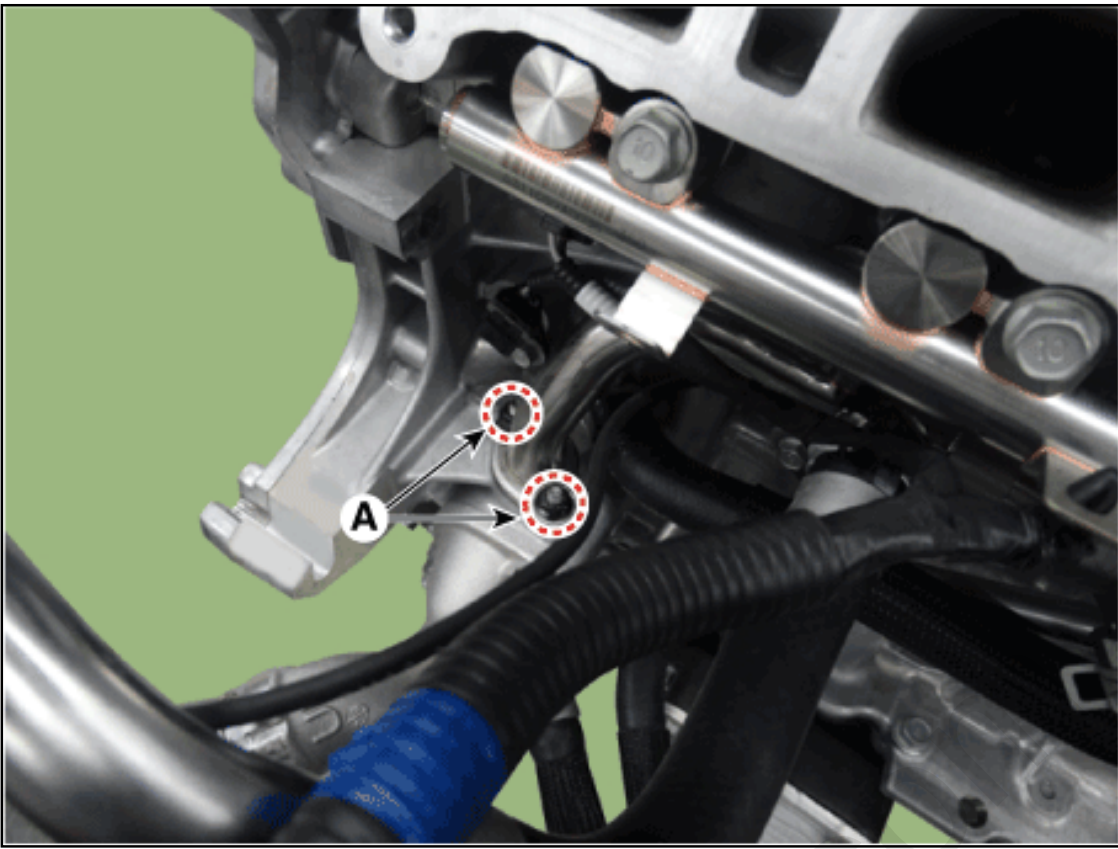
6. Remove the battery and battery tray.
(Refer to Engine Electrical System - "Battery")
7. Disconnect the heater hoses (A).



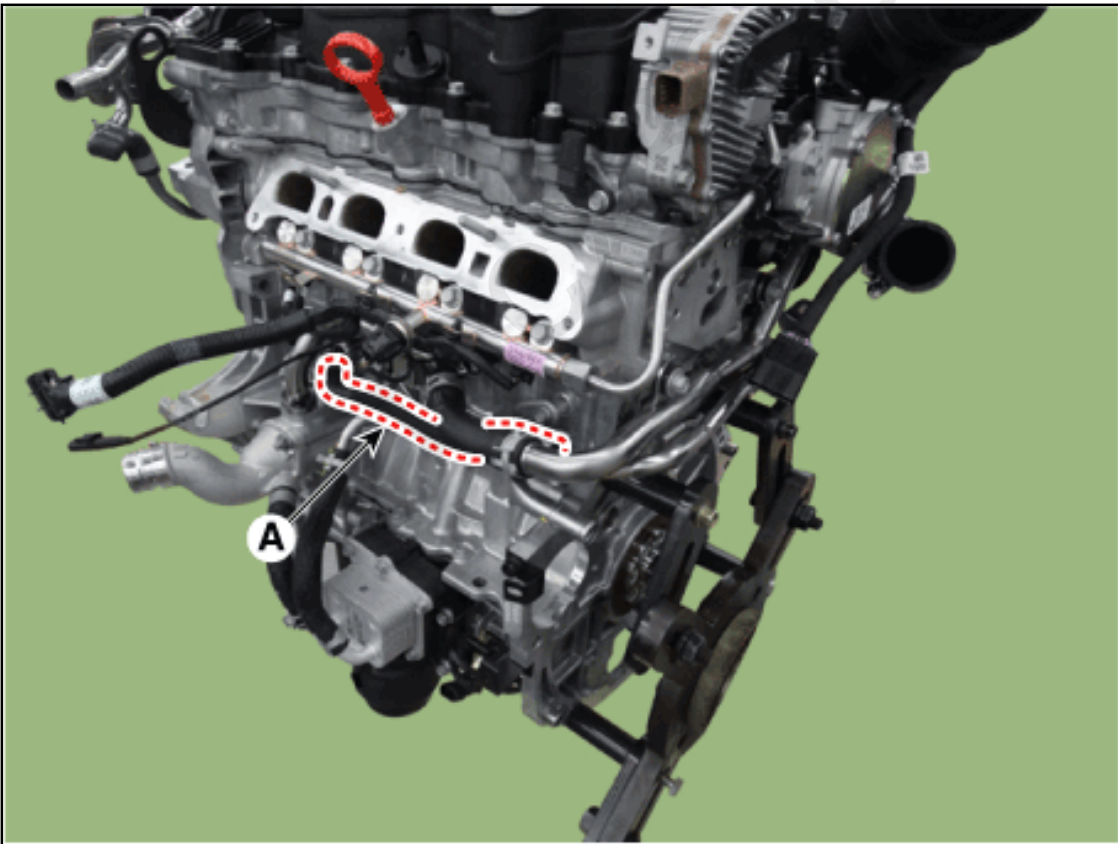
8. Remove the integrated thermal management module (ITM).
9. Remove the intake manifold.
(Refer to Intake and Exhaust System - "Intake Manifold")
10. Remove the drive belt.
(Refer to Drive Belt System - "Drive Belt")
11. Remove the mild hybrid starter generator (MHSG).
(Refer to Engine Electrical System - "Mild Hybrid Starter Generator (MHSG)")
12. Disconnect the wiring connectors and harness clamps and remove the connector brackets around the heater pipe.
13. Remove the heater pipe B mounting nuts (A)

Tightening torque :

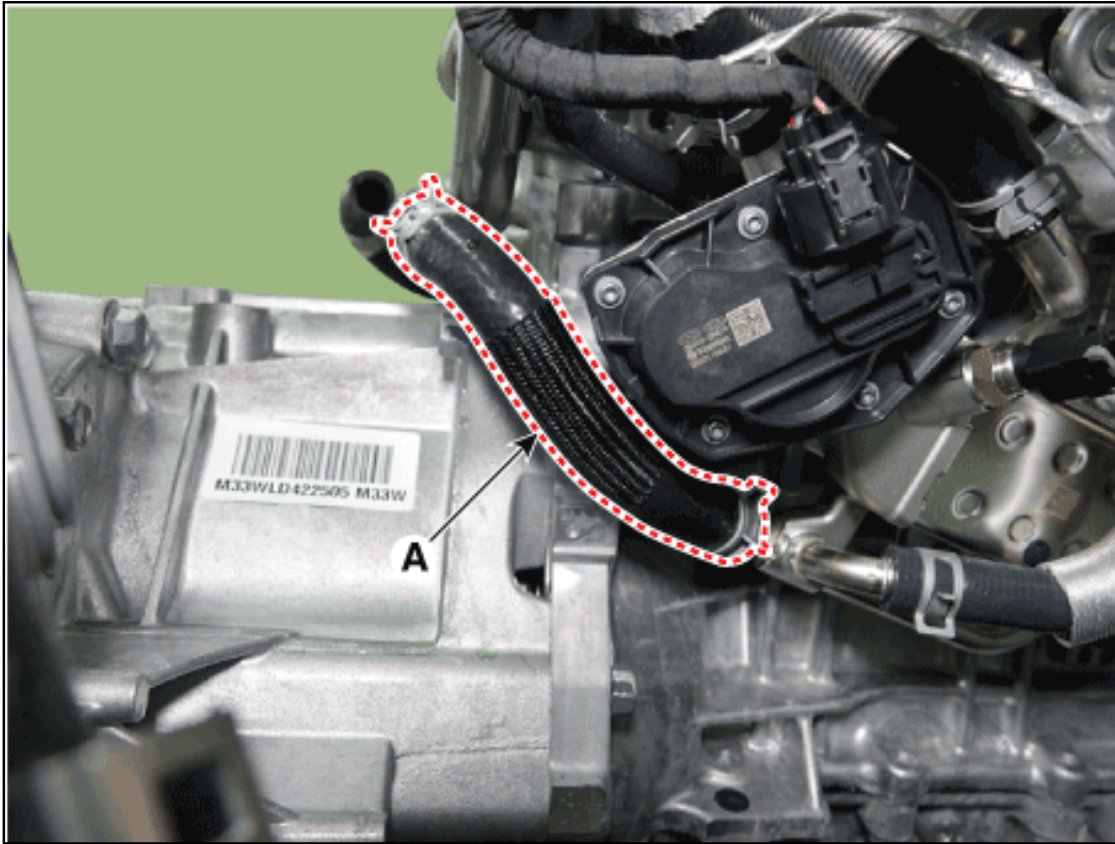
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



14. Disconnect the heater outlet pipe hose (A).



15. Disconnect the turbo charger coolant hose A (A).

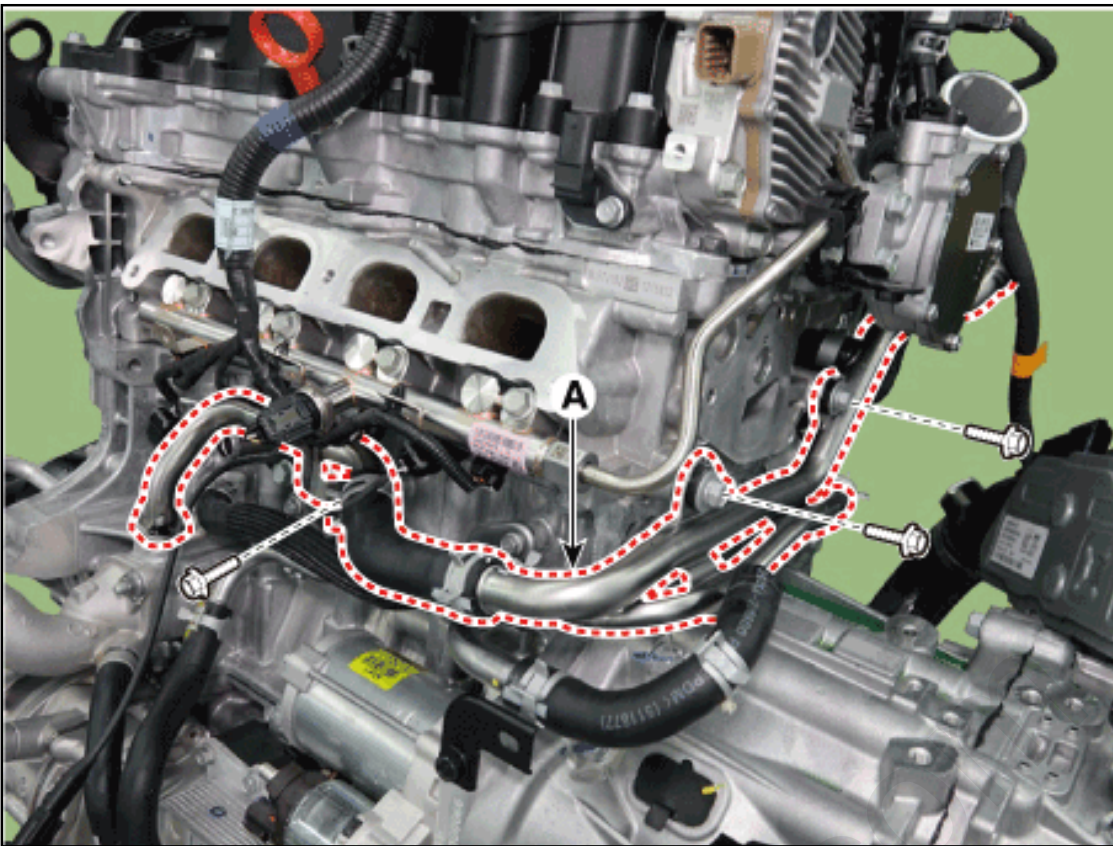


16. Remove the heater pipe A and heater pipe B (A).

Tightening torque :

Bolt (B) : 9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)

Bolts (C) : 14.7 - 21.6 N.m (1.5 - 2.2 kgf.m, 10.8 - 15.9 lb-ft)



17. Install in the reverse order of removal.



- Always use a new integrated thermal management module (ITM) O-ring.
- When assembling the hose, Use a product with EPDM rubber stability.
- If a hose lubricant is applied, fill the coolant after 30 minutes of assembly.
- Place the hose at the specified location of the stopper and assemble them together. The front side of stoppers should be in close contact with the hose. And then, place the clamp at the correct location.

18. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

19. Start engine and check for leaks.

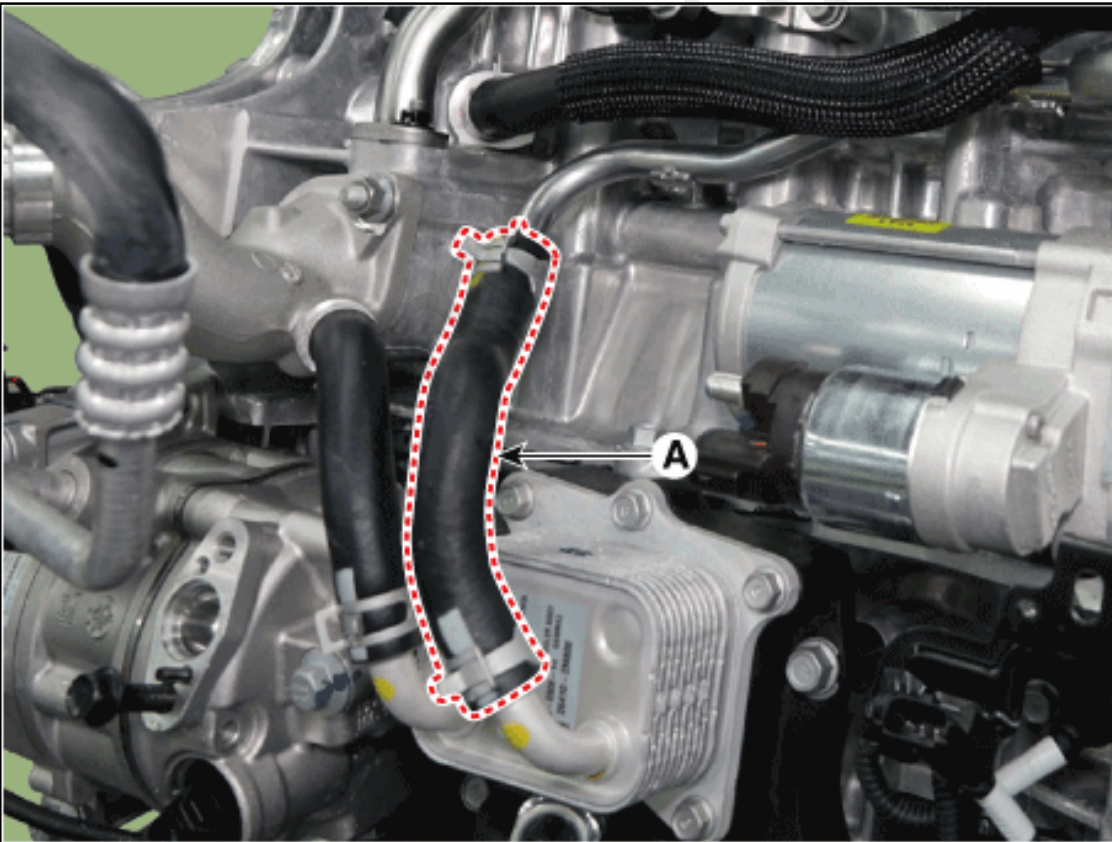
Oil cooler pipe

1. Remove the heater pipe

2. Disconnect the oil cooler hose (A) from the ITM.



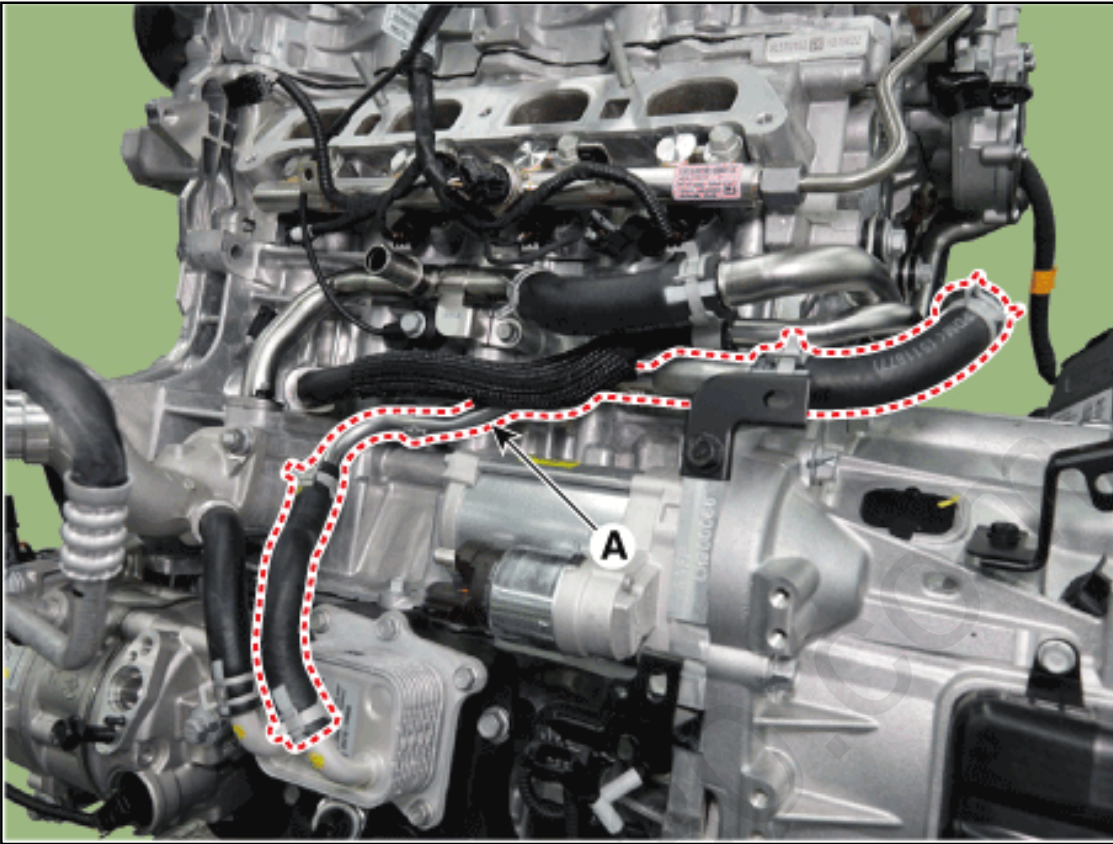
3. Disconnect the oil cooler hose (A) from the oil cooler.



4. Remove the oil cooler pipe (A) after loosening the mounting bolts.

Tightening torque :

9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



5. Install in the reverse order of removal.

6. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



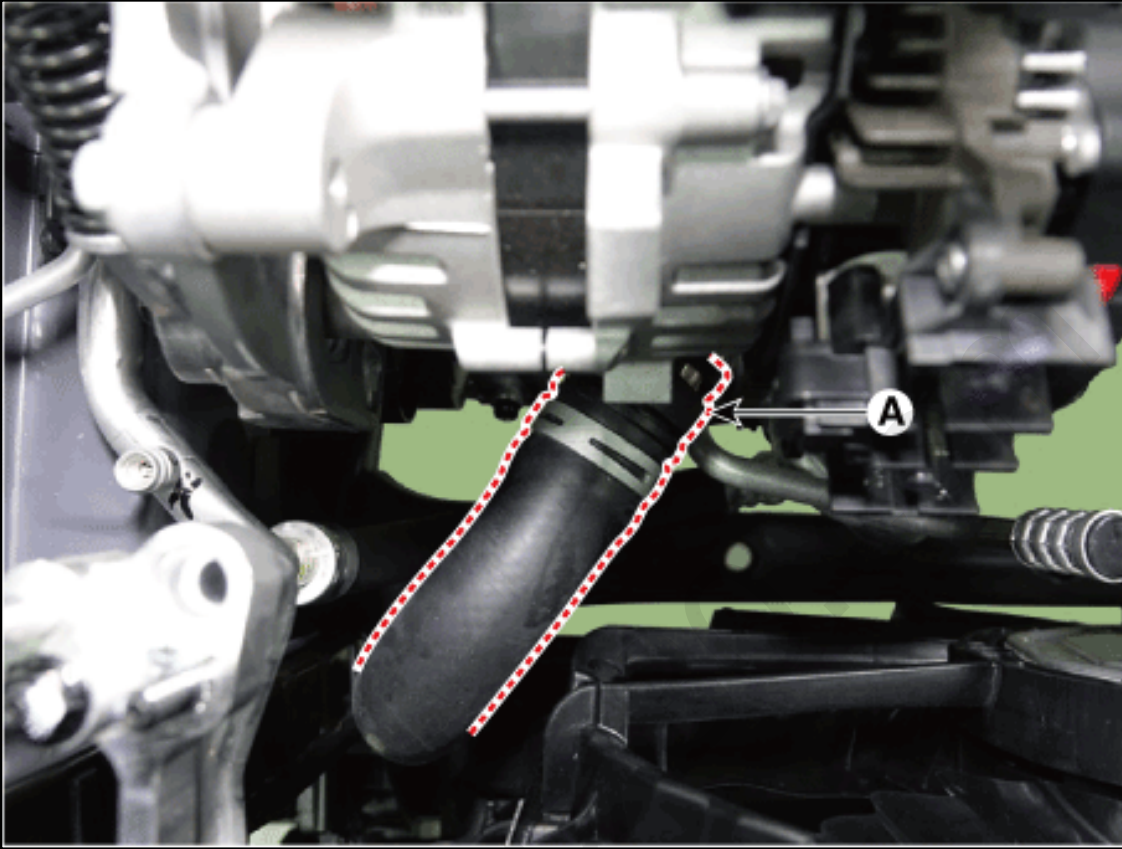
- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

7. Start engine and check for leaks.

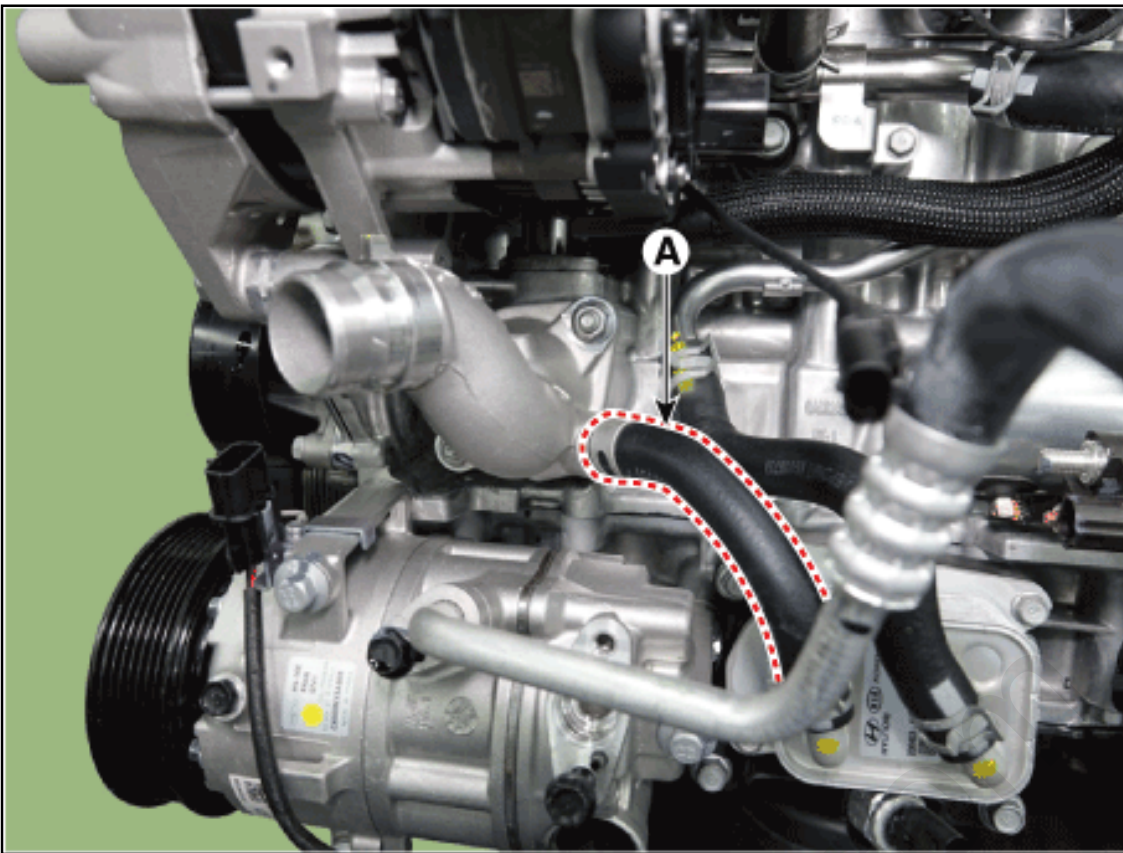
Removal

Water Inlet Fitting

1. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
2. Drain the coolant.
(Refer to Cooling System - "Coolant")
3. Disconnect the radiator lower hose (A).



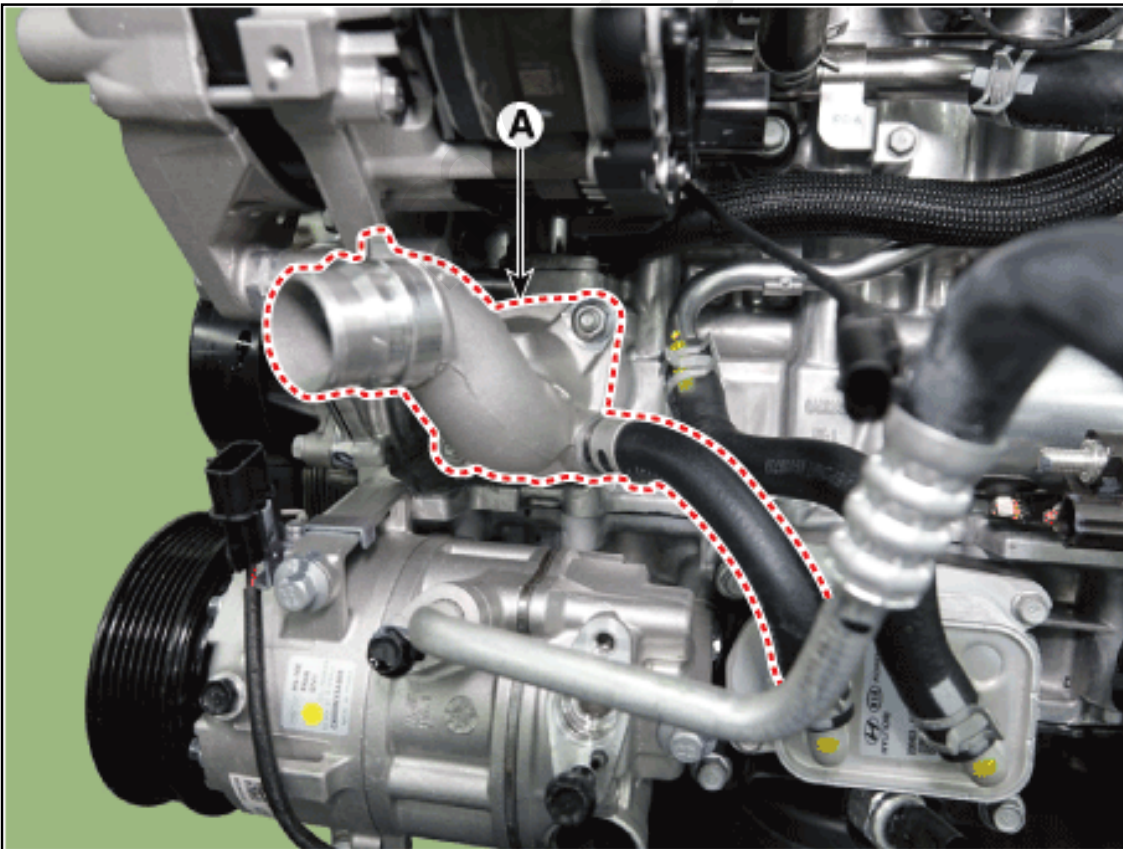
4. Disconnect the oil cooler hose (A).



5. Remove the water inlet fitting (A).

Tightening torque :

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



6. Install in the reverse order of removal.



- Always use a new O-ring.
- When assembling the hose, Use a product with EPDM rubber stability.
- If a hose lubricant is applied, fill the coolant after 30 minutes of assembly.
- Place the hose at the specified location of the stopper and assemble them together. The front side of stoppers should be in close contact with the hose. And then, place the clamp at the correct location.

7. Fill with engine coolant.

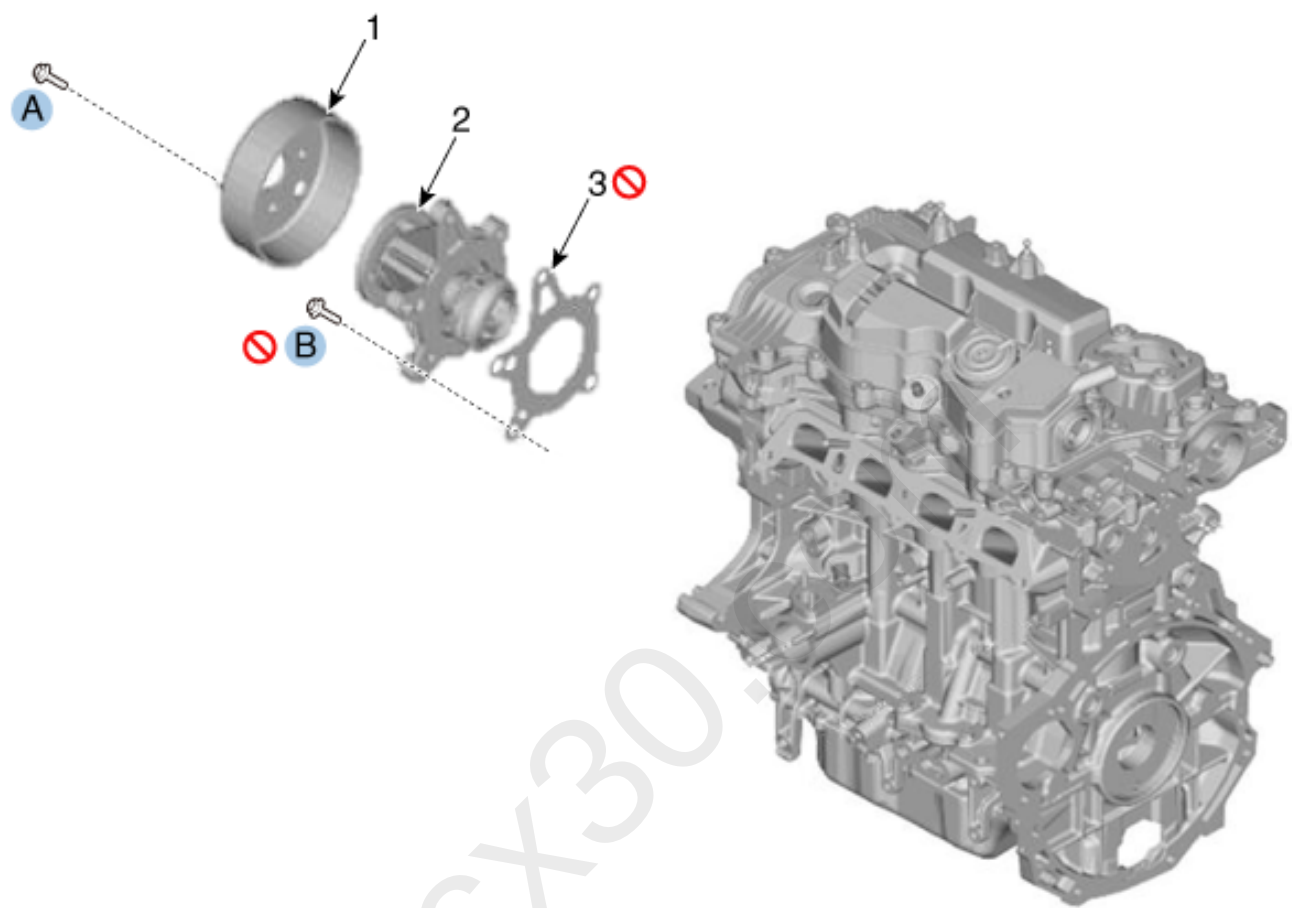
(Refer to Cooling System - "Coolant")



- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

8. Start engine and check for leaks.

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- 1. Water pump pulley
- 2. Water pump

- 3. Water pump gasket

Troubleshooting

Trouble Symptom		Probable Cause		Remedy
Coolant leakage	•From the bleed hole of the water pump	Visually check	•Check leaks after about ten-minute warming up.	•If coolant still leaks, replace a water pump.
				•If leakage stops, reuse the water pump (Do not replace the pump with a new one).
				•Be careful not to misrepair because evaporite sediment caused by tiny vapor evaporation or a little coolant evaporation evidence can happen even when the water pump operates normal. – Get rid of sediment in the air hole, and recheck there is leakage or not.
	•From gaskets or bolts		•Check the tightening of the water pump mounting bolts.	•Retighten the mounting bolts.
			•Check damage of gaskets or inflow of dust.	•Replace the gasket and clean dust off.
	•From outer surface of water pump		•Check the material or any cracks of the water pump.	•Poor material. If any crack found, replace the water pump.

Noise	• From bearings • From mechanical seals • Impeller interference	Inspection with a stethoscope	• After starting the engine, check noise with a stethoscope.	• If there is no noise, reuse the water pump (do not replace it).
		Inspection after removing a drive belt	• After removing a water pump and a drive belt, check noise again	• If there is any noise from the water pump, remove the drive belt and recheck.
				• If there is noise, reuse the water pump. (Check other drive line parts)
		Inspection after removing a water pump	• Check water pump body and impeller interference.	• If there is no noise, replace the water pump with a new one. • If there is any interference between them, replace the water pump with a new one.
Overheating	• Damaged impeller • Loosened impeller	Loosened impeller	• Corroded impeller insert • Replace the water pump if it is separated by corrosion between impellers and inserts • Replace the water pump if there is a crack in the PL impeller.	• Check engine coolant. • Poor coolant quality / Maintenance check
			• Impeller separated from the shaft	• Replace the water pump.

	•Overheat warning lamp •Excessive Coolant Temperature	Obstruction of radiator by foreign matter Check the front of the condenser/radiator inside the bumper for contamination by debris.	•Clean the radiator
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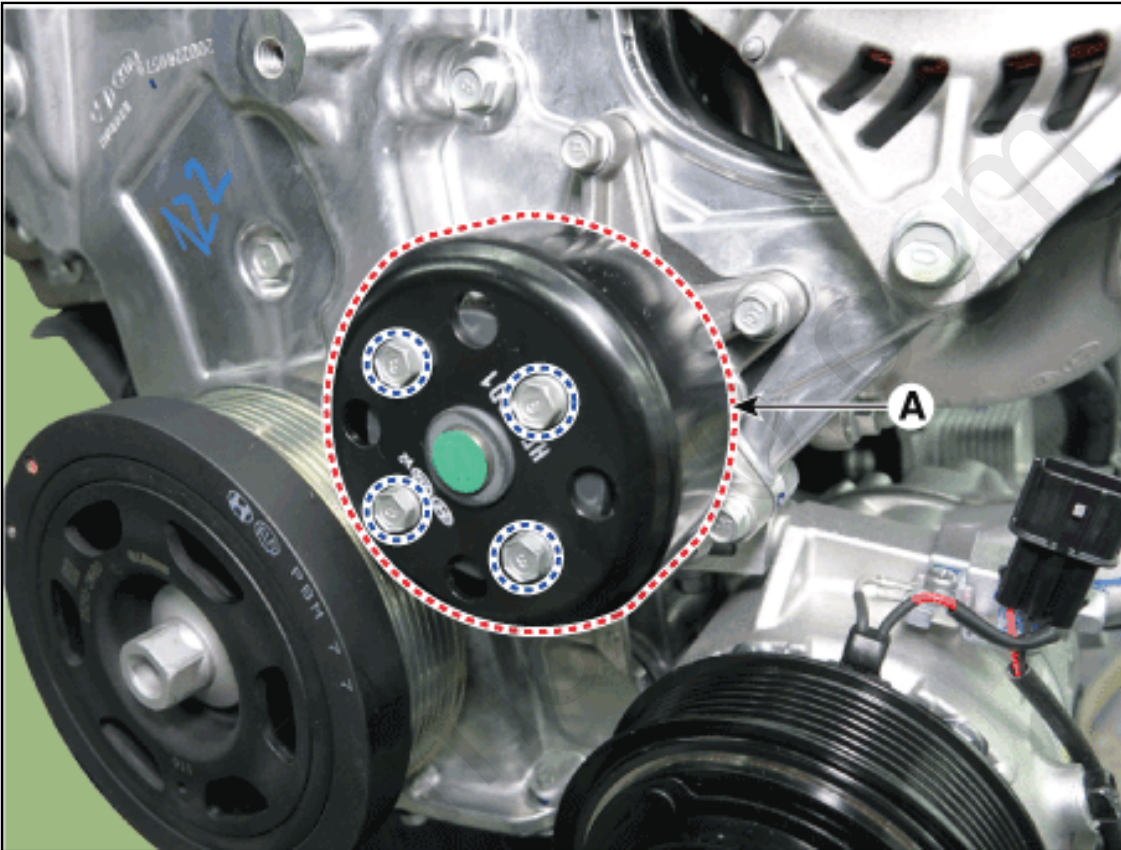
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Removal

1. Remove the engine room under cover.
(Refer to Engine and Transaxle Assembly - "Engine Room Under Cover")
 2. Drain the coolant.
(Refer to Cooling System - "Coolant")
 3. Remove the drive belt.
(Refer to Drive Belt System - "Drive Belt")
 4. Remove the water pump pulley (A).
-

Tightening torque :

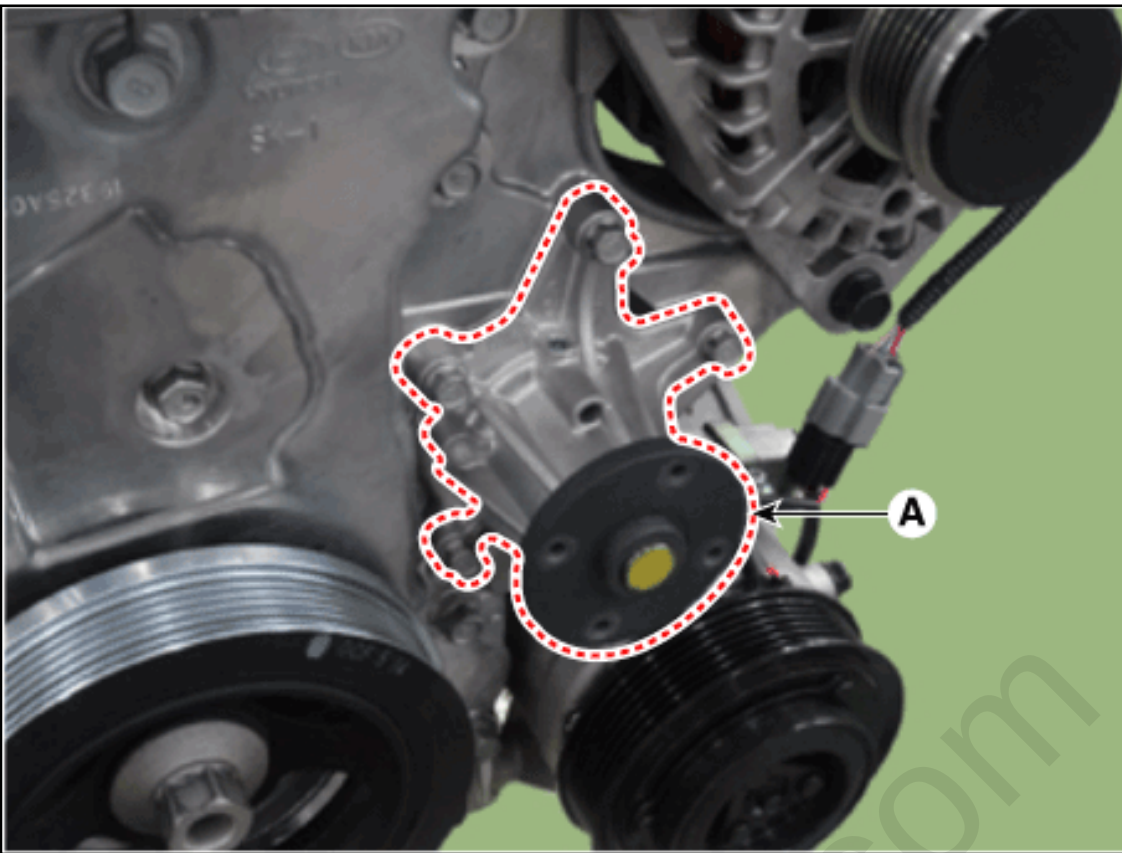
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



5. Remove the water pump (A) with a gasket.
-

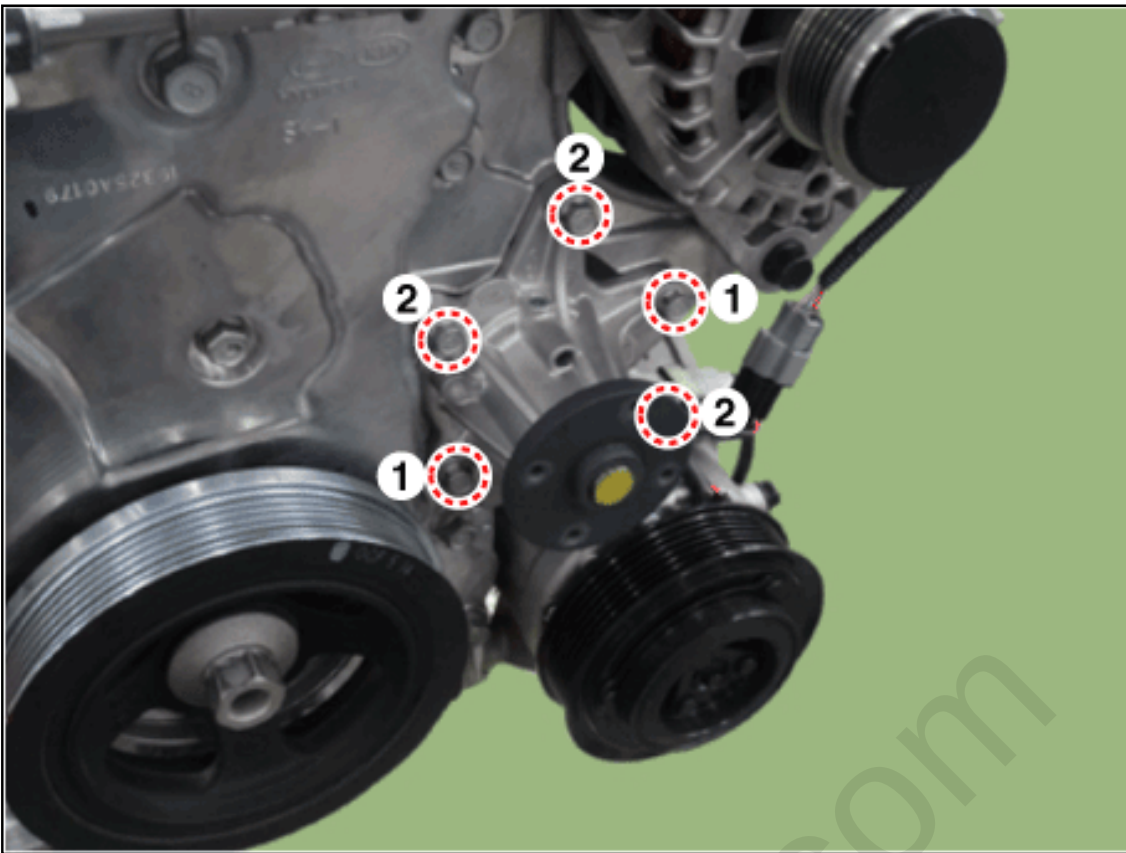
Tightening torque :

11.8 - 13.7 N.m (1.2 - 1.4 kgf.m, 8.7 - 10.1 lb-ft)

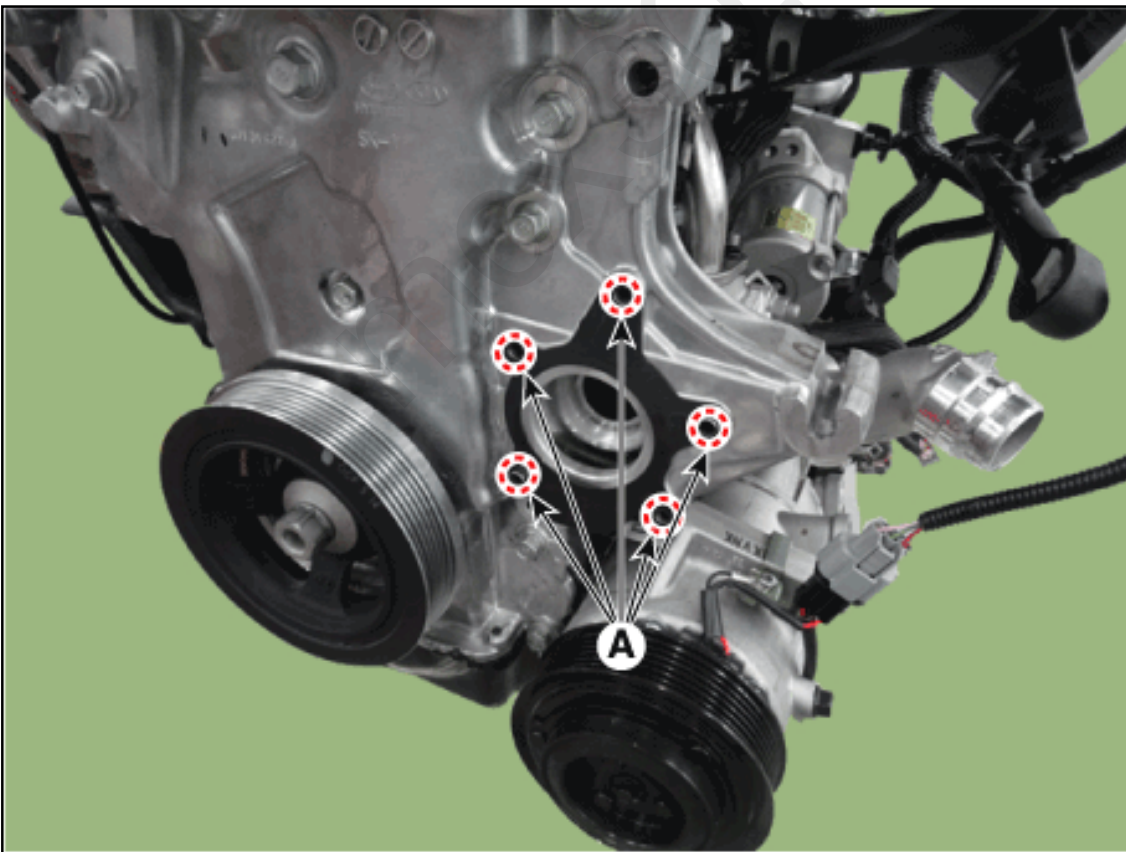


6. Install in the reverse order of removal.

- Always use new water pump gasket.
- Check the specifications of the water pump installing bolts. (Make sure that a solid sealant is applied to the thread of the bolt.)
- Always use new water pump bolts.
- Remove the sealant residue inside the bolt tap hole.
- When installing the water pump, tighten the bolts in the order shown in the figure below.



- Before installing the water pump, remove the hardened sealant, foreign matters, oil, dust, water, etc. off the inside hole (A) where the bolt is installed.



7. Fill with engine coolant.

(Refer to Cooling System - "Coolant")



- The coolant must be injected according to the integrated thermal management module (ITM) coolant filling method.

8. Start engine and check for leaks.

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Description

The AAF (Active Air Flap) is located between radiator grille and radiator. The AAF controls the motor properly and then the air flaps adjust air flow from the radiator grille.

During high speed driving, it will reduce the air resistance by closing the air flaps. This improves the fuel efficiency and enhances the driving stability. If the engine is overheated, the system will open the air flaps to drop the temperature. During the A/C operation, the system will open the air flaps to maintain the refrigerant pressure. The system will close the air flaps to warm up the engine rapidly during cold start.

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Removal and Installation

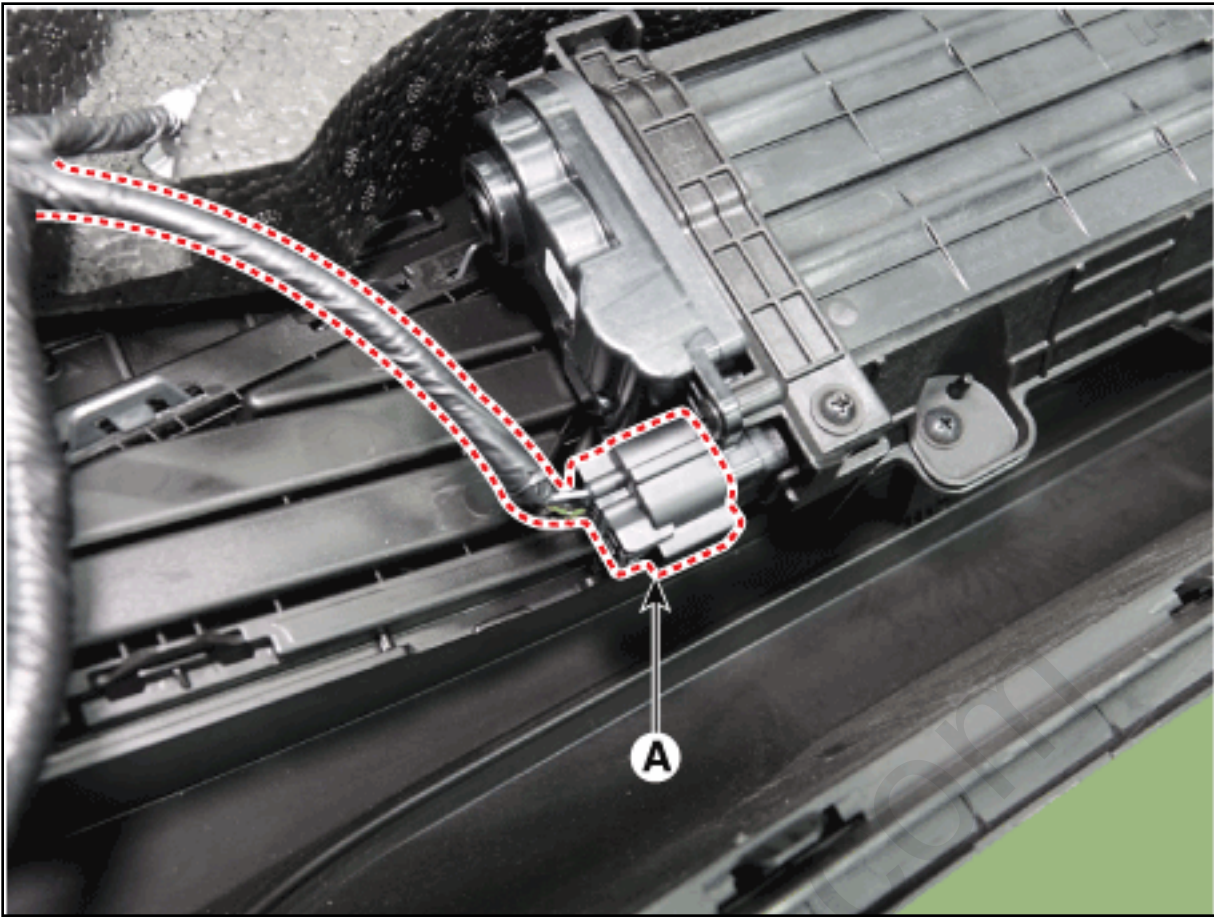
Active Air Flap(AAF)

1. Remove the front bumper.
(Refer to Body (Interior and Exterior) - "Front Bumper Cover")
2. Disconnect the active air flap connector (A).

[RH]

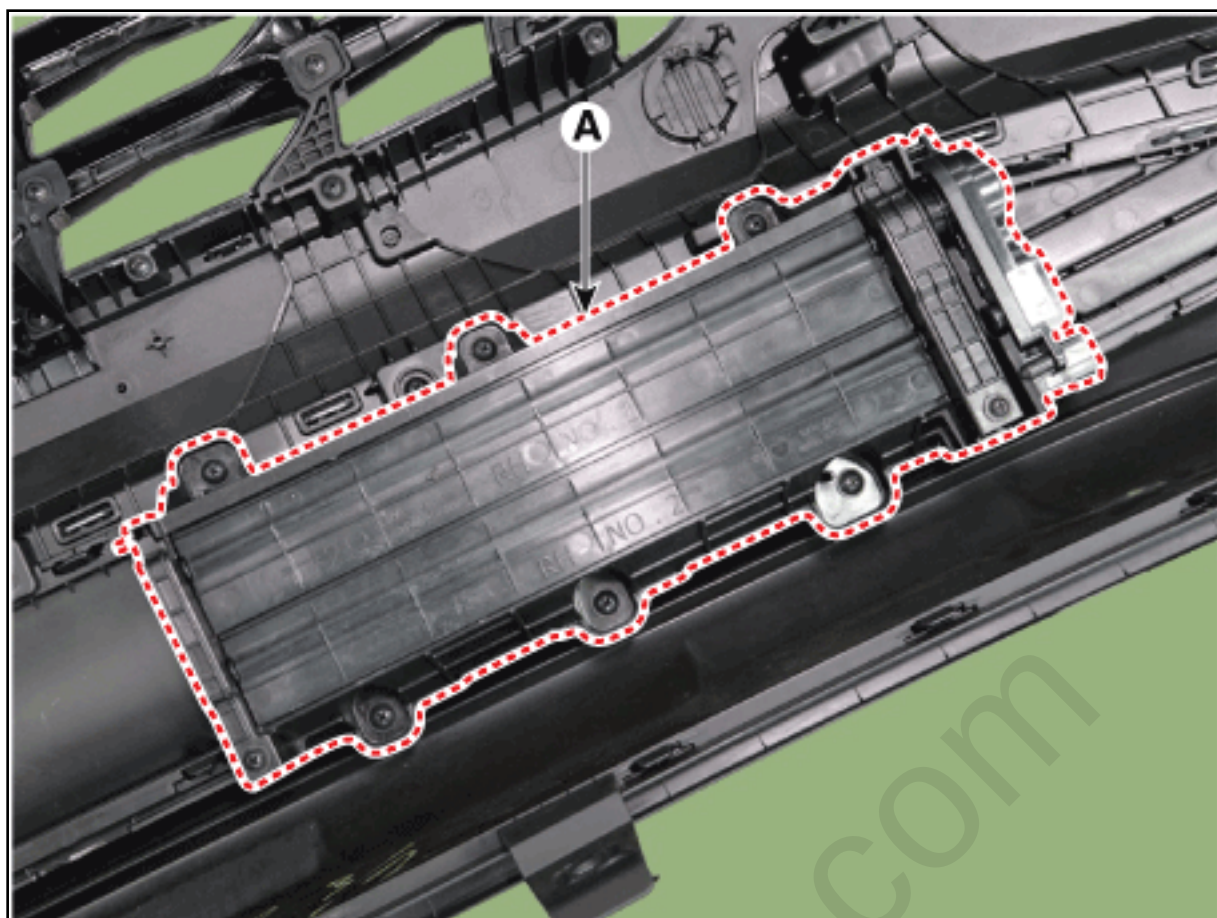


[LH]

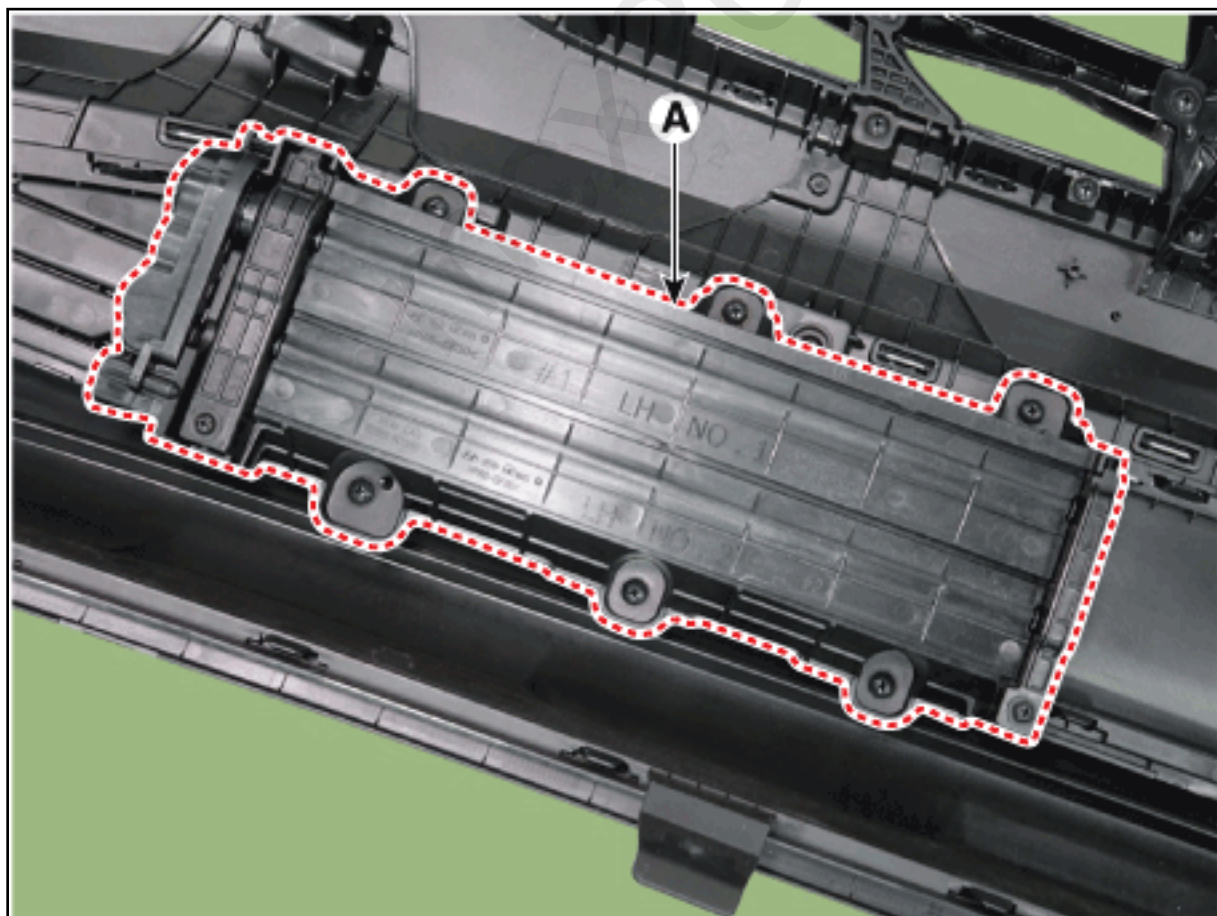


3. Remove the active air flap (A) after loosening the mounting screws.

[RH]



[LH]



4. Install in the reverse order of removal.

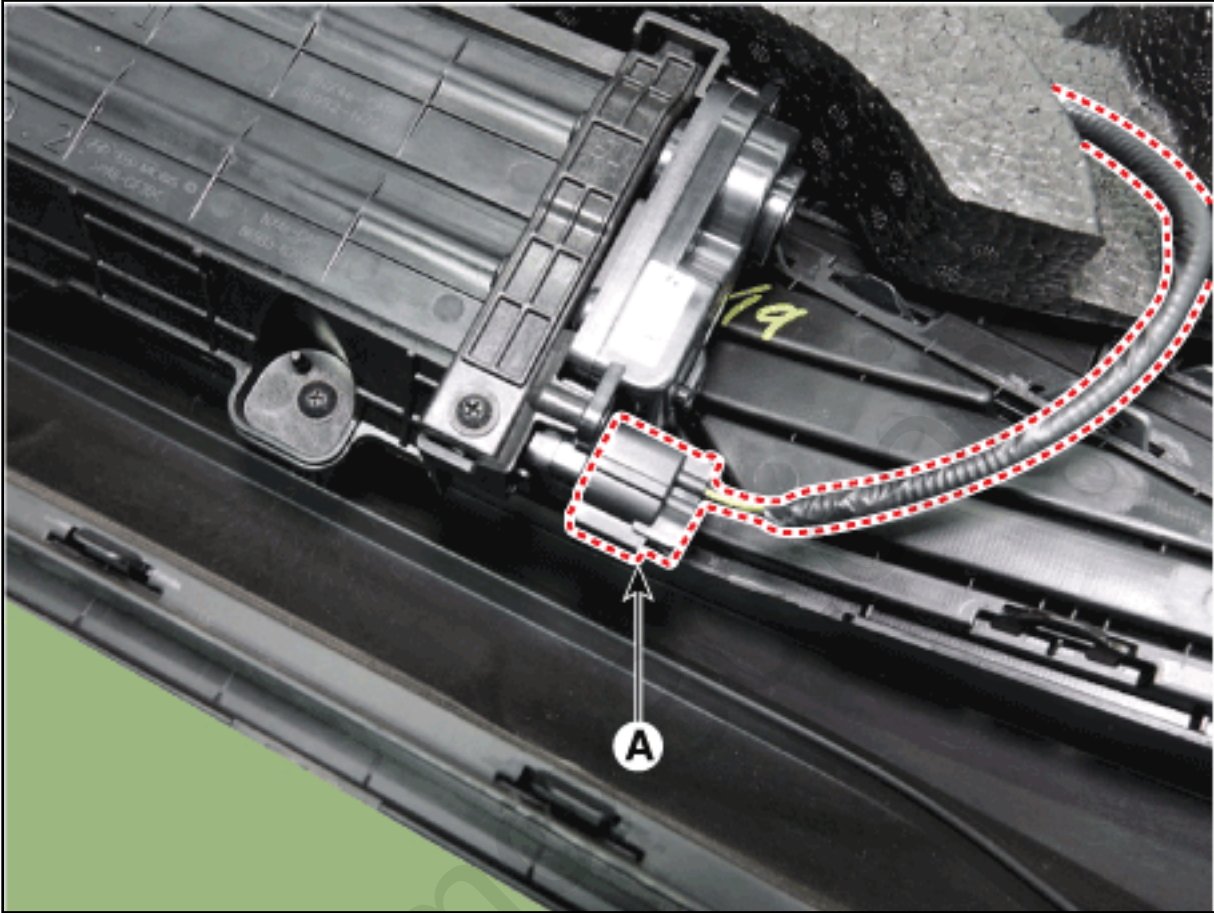
Active Air Flap (AAF) Actuator

1. Remove the front bumper.

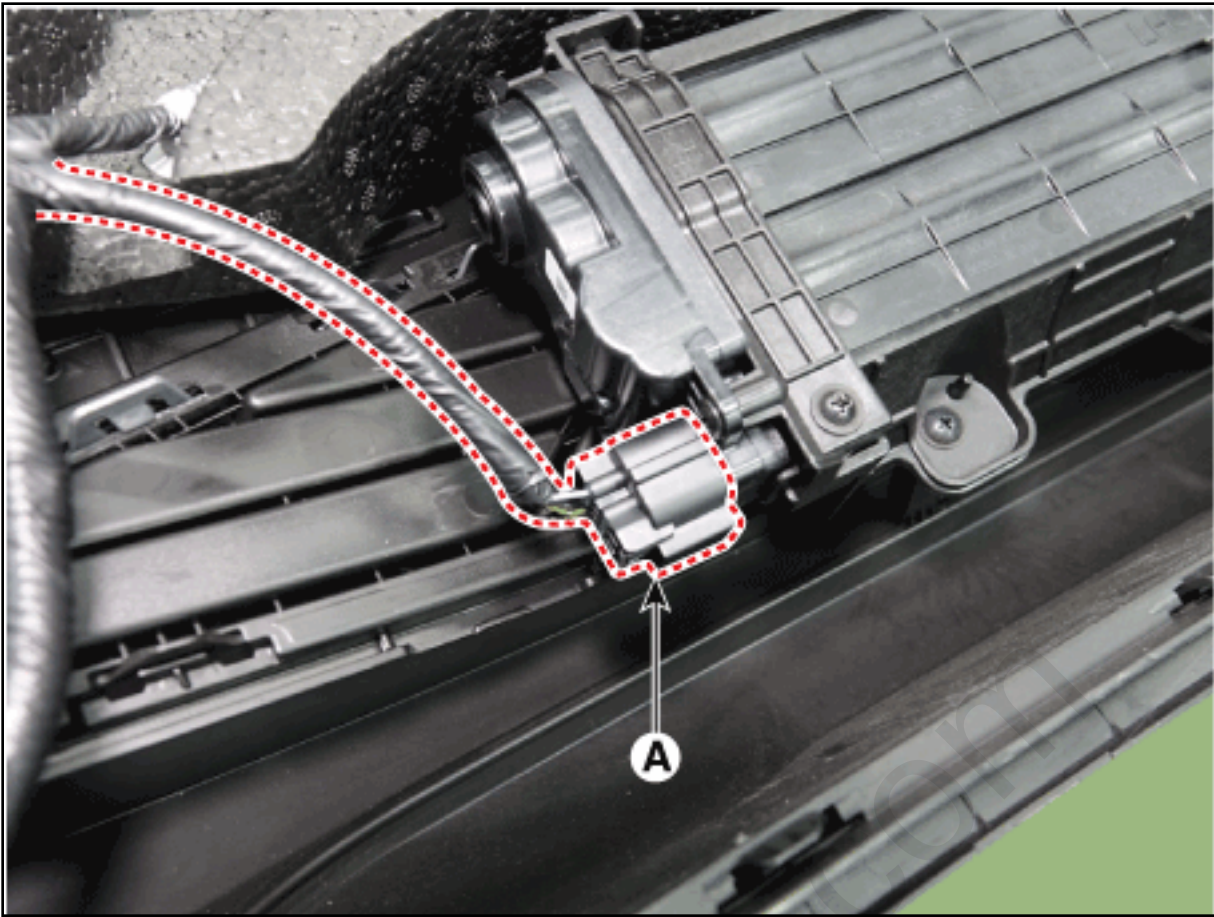
(Refer to Body (Interior and Exterior) - "Front Bumper Cover")

2. Disconnect the active air flap connector (A).

[RH]

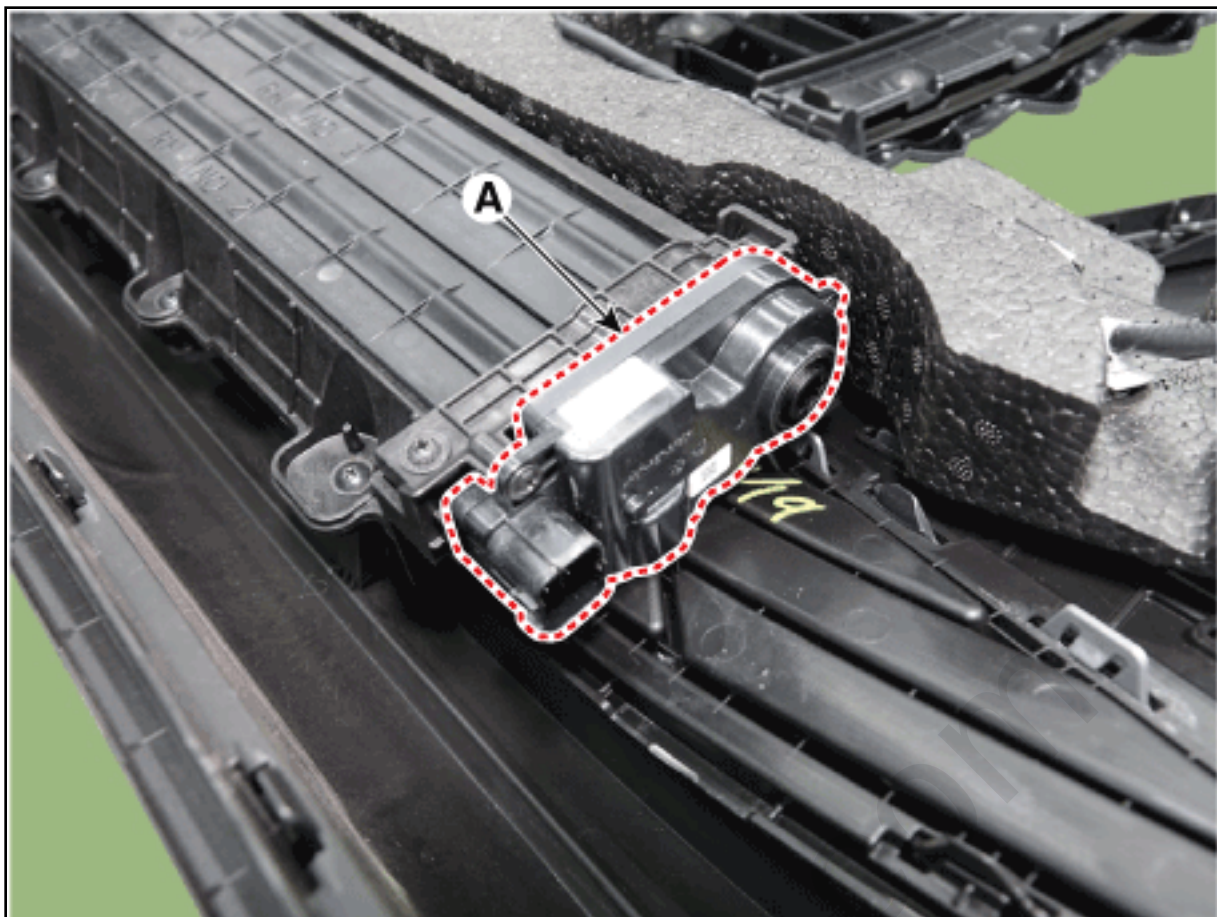


[LH]



3. Remove the active air flap actuator (A) after loosening the mounting screws.

[RH]



[LH]



4. Install in the reverse order of removal.

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