

Inspection

Throttle Position Sensor (TPS)

1. Connect the Diagnostic tool on the Data Link Connector (DLC).
2. Start the engine and measure the output voltage of TPS 1 and 2 at C.T. and W.O.T.

Specification : Refer to "Specification"

ETC Motor

1. Turn the ignition switch OFF.
2. Disconnect the ETC module connector.
3. Measure resistance between the ETC module terminals 1 and 2.
4. Check that the resistance is within the specification.

Specification : Refer to "Specification"

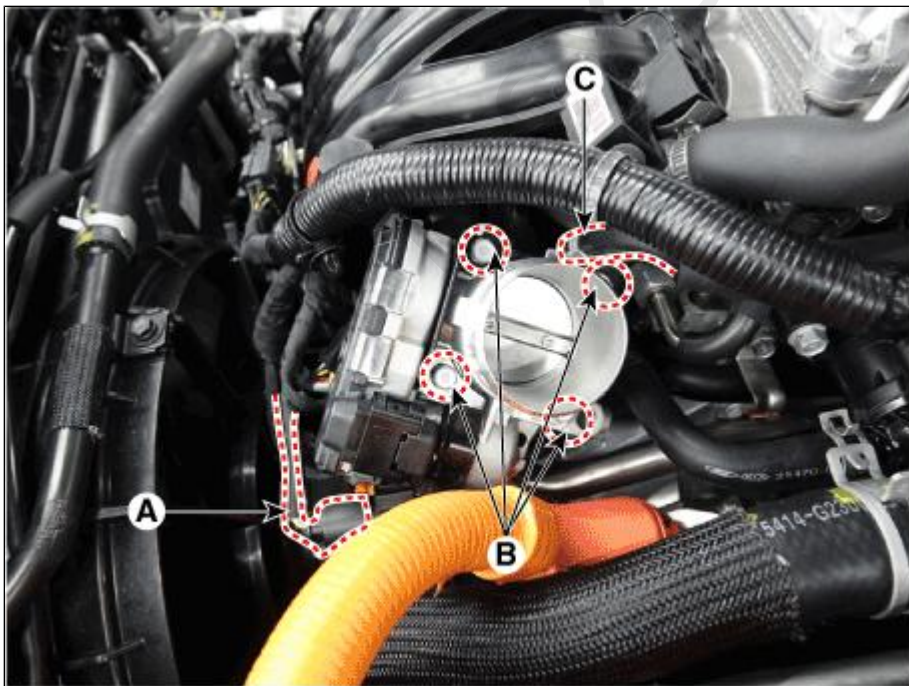
Removal

1. Turn ignition switch OFF and disconnect the positive (+) battery cable.
2. Remove the air cleaner assembly.
(Refer to Engine Mechanical System - "Air Cleaner")
3. Disconnect the ETC module connector (A).
4. Remove the ETC module (B) from the engine after loosening the bolts.

Tightening torque :

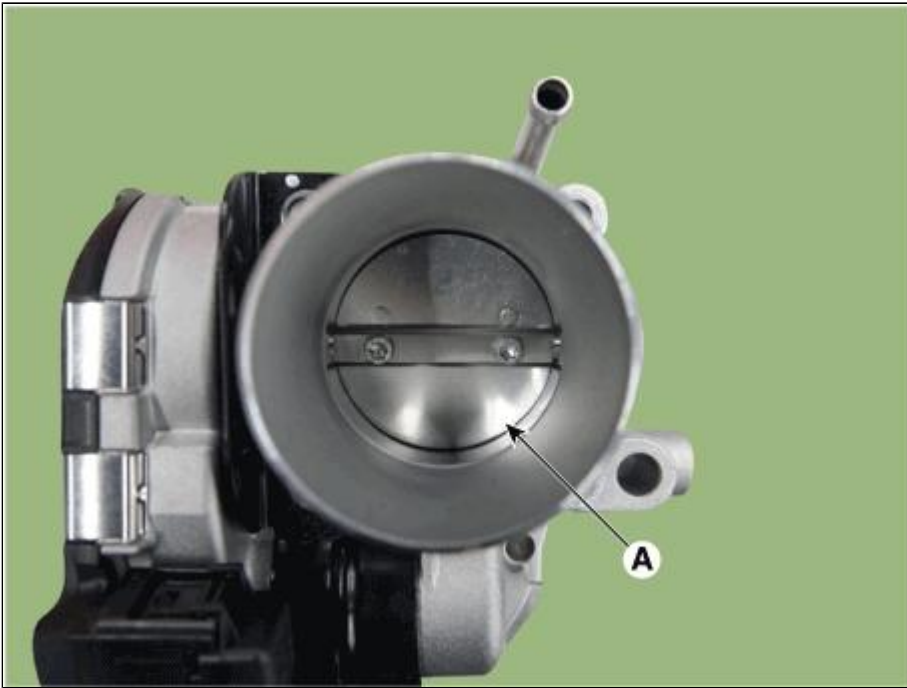
7.8 - 9.8 N.m (0.8 - 1.0 kgf.m, 5.7 - 7.2 lb-ft)

5. Disconnect the vapor hose (C).

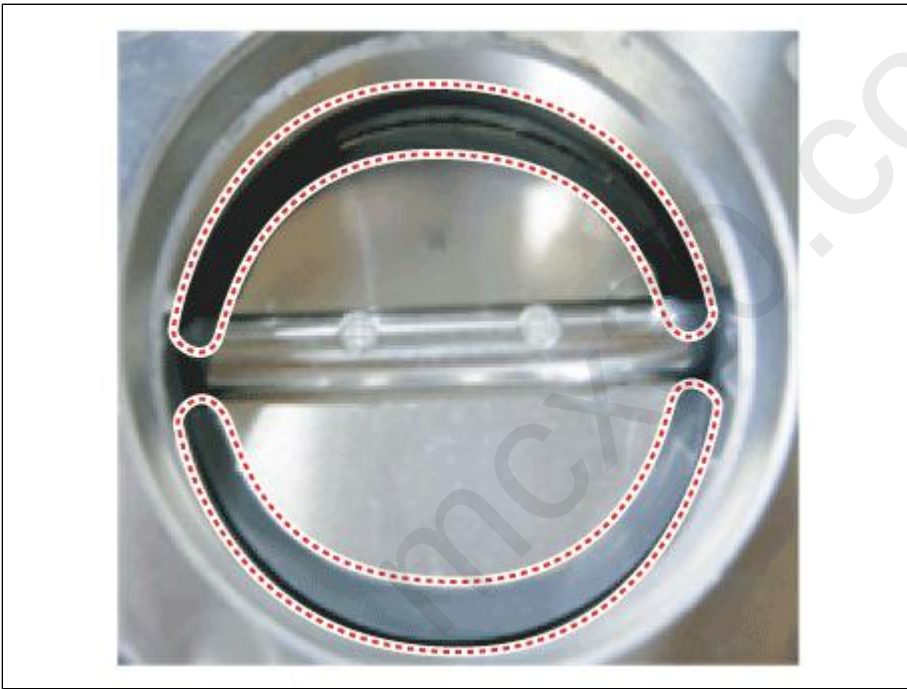


Cleaning

1. Remove the ETC Module.
(Refer to Engine Control System - "ETC Module")
2. Keep the ETC module plate (A) open.



3. Clean the contamination part of the throttle body with a soft and lint-free cloth dampened with cleanser to prevent foreign objects from going in.



⚠ CAUTION

Do not spray a cleanser directly to ETC module. Use a soft and lint-free cloth to clean carbon.
Be careful not to wipe out coating (A) around the shaft. If the coating is removed, poor idling control can be caused by excessive air leakage or foreign materials in the bearing of the shaft.

4. After cleaning it, reinstall the ETC module and perform ETC module learning procedure.
(Refer to Engine Control System - "ETC Module")

Installation

⚠ CAUTION

Install the component with the specified torques.
Note that internal damage may occur when the component is dropped. If the component has been dropped, inspect before installing.

1. Install in the reverse order of removal.

Adjustment

ETC Module Learning Procedure

When replacing new ETC module or reinstalling it, ETC module learning procedure must be performed.

1. Hold the start button or ignition key at the IG ON position for 1 minute.
2. After starting the engine, keep the idle state for 15 minutes.
3. Turn the ignition key or the start button off and hold for 1 minute.
4. Re-start the engine and check the idle roughness.

CAUTION

DTC codes (P0638, P2110) might be displayed if ETC module learning procedure does not performed after replacing ETC module.

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