

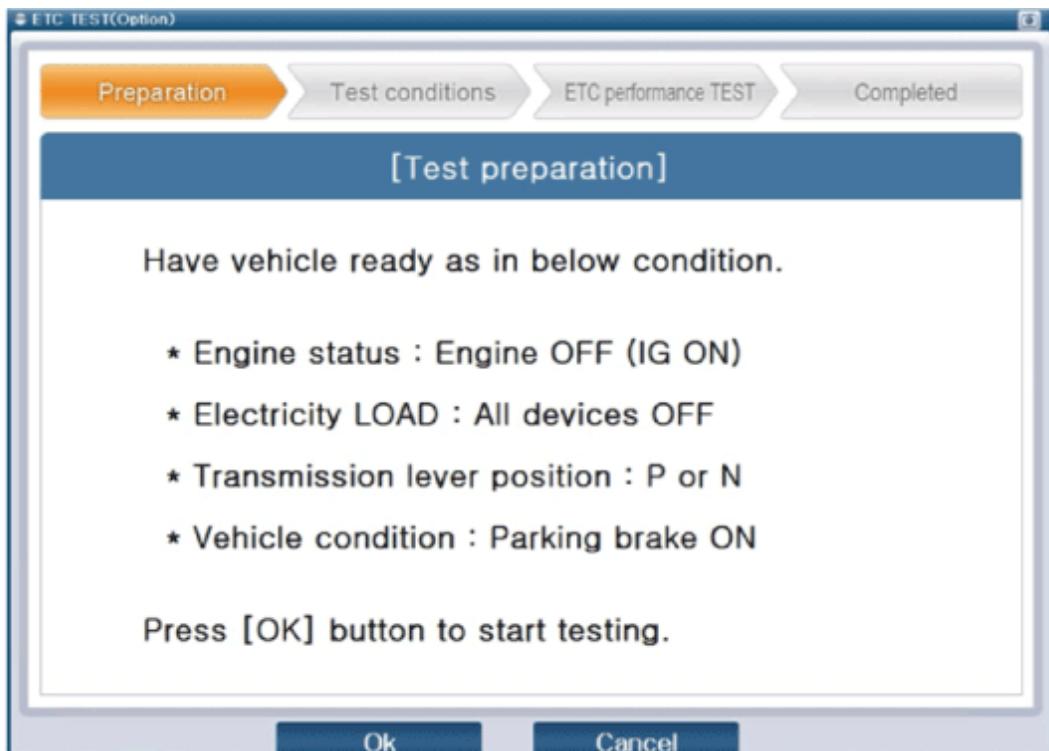
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## INSPECTION

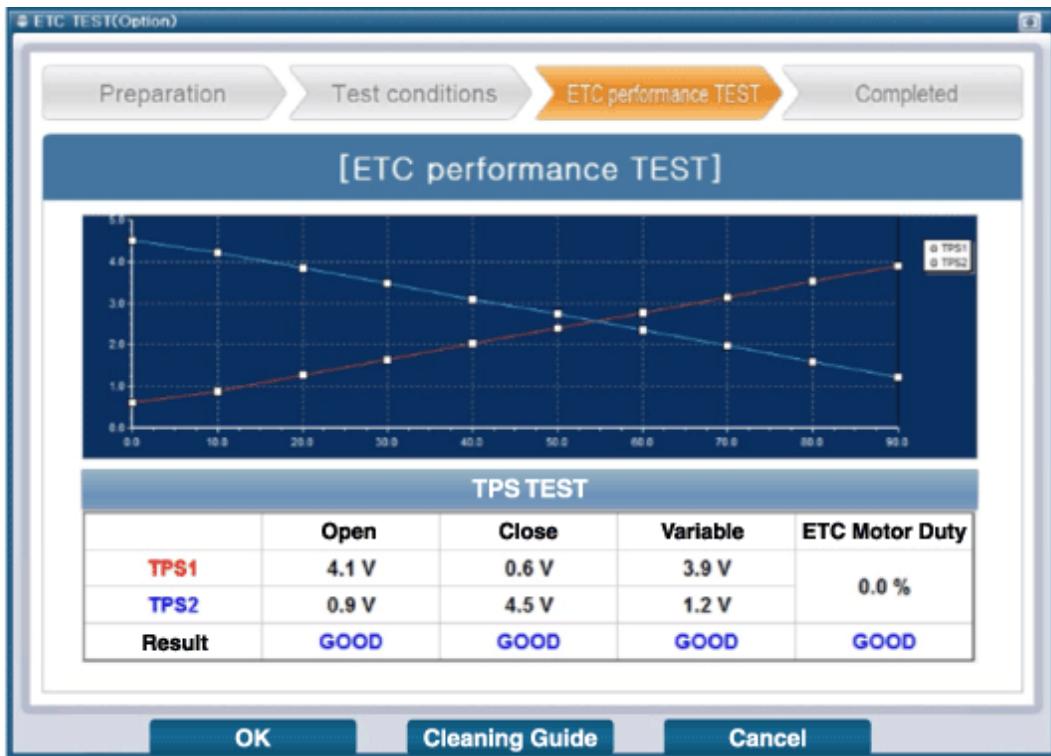
If idle rpm is unstable or engine stops, check the ETC module operation with KDS diagnostic tool.

And if necessary, clean carbon in the throttle body.

1. Connect the KDS to the Data Link Connector (DLC).
2. Select "Vehicle S/W management" → "Inspection / Test" → "ETC Performance Test" on the KDS menu.
3. Perform "ETC module test" procedure in accordance with the message.



4. If the test result of the ETC module or TPS signal shows NG, perform ETC module cleaning.



## REMOVAL

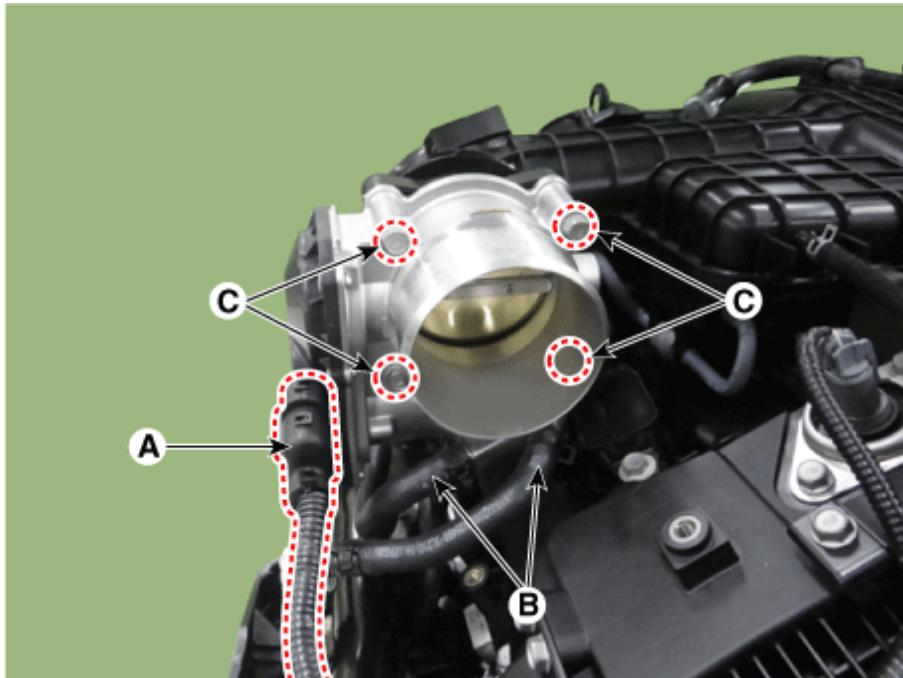
1. Switch "OFF" the ignition and disconnect the negative (-) battery terminal.
2. Remove the engine cover.  
**(Refer to Engine Mechanical System - "Engine Cover")**
3. Disconnect the intake hose (A).



4. Disconnect the ETC module connector (A).
5. Disconnect the coolant hose (B).
6. Remove the ETC module from the engine after loosening the installation bolt (C).

**Electronic throttle body mounting bolt :**

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

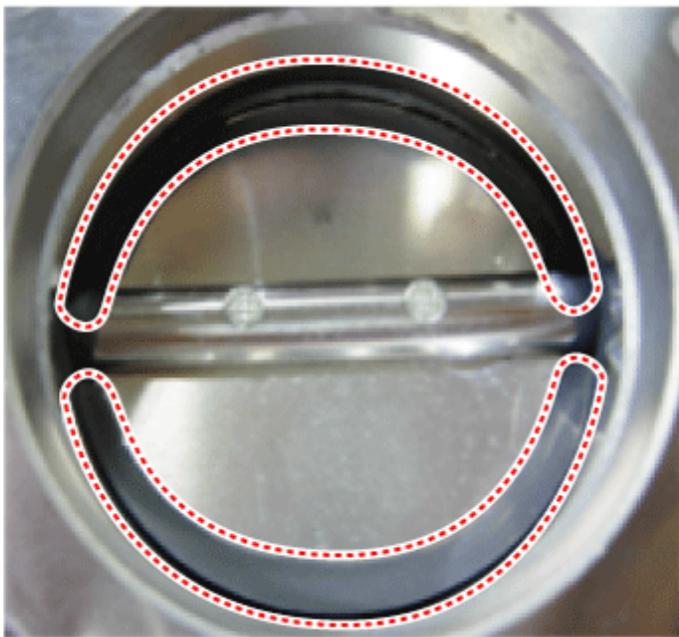


## CLEANING

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



- 3.lean the pollutant in the throttle body with a soft cloth moistened with cleaning fluid.

**NOTICE**

- Do not spray cleaning fluid directly onto ETC. Use a lint free cloth moistened with cleaning fluid.
- Be careful not to clean the coating fluid around the shaft. If coating fluid is removed, idling control failure might occur by foreign substance inflow or excessive air leakage.

4. After cleaning, re-install the ETC module and then perform the ETC module learning procedure.

**(Refer to Engine Control System - "ETC System" - Adjustment)**

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**INSTALLATION****NOTICE**

- Install the component to 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.

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**ADJUSTMENT****ETC module learning procedure**

Be sure to perform the ETC module learning procedure when replacing or re-installing the ETC module.

1. Wait for 1 minute with the ignition switch ON.
2. Start the engine and hold the idle status for 15 minutes.
3. Wait for 1 minute with the ignition switch OFF.
4. Restart the engine, check that the idle speed is stable.

**NOTICE**

Failing to perform the ETC module learning procedure after replacement or reinstallation may lead to MIL illumination with DTCs.

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