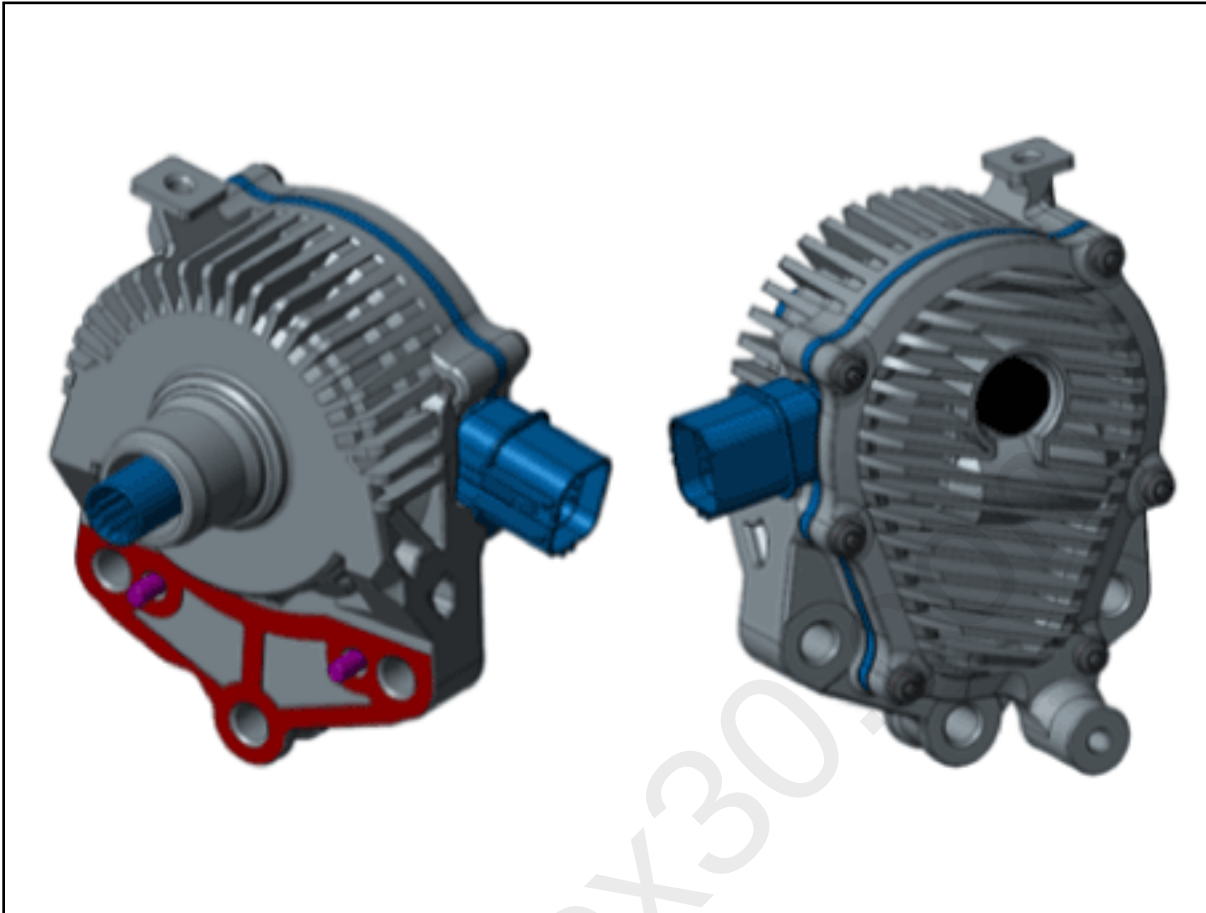


Description

CVVD(Continuous Variable Valve Duration) System is a device to control the optimum open and close timing according to the driving mode by changing the valve opening section.

[CVVD Actuator]

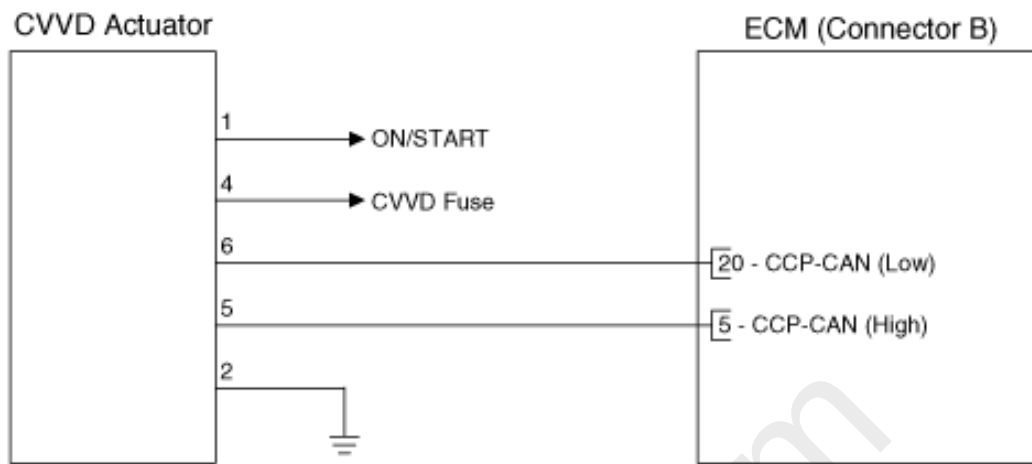


Specification

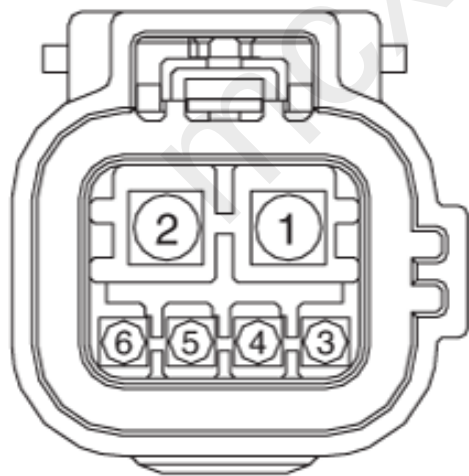
Item	Specification
Type	BLDC MOTOR
Operating Voltage (V)	9.1 - 16
Control Frequency (kHz)	10

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Circuit
Diagram



Harness Connector

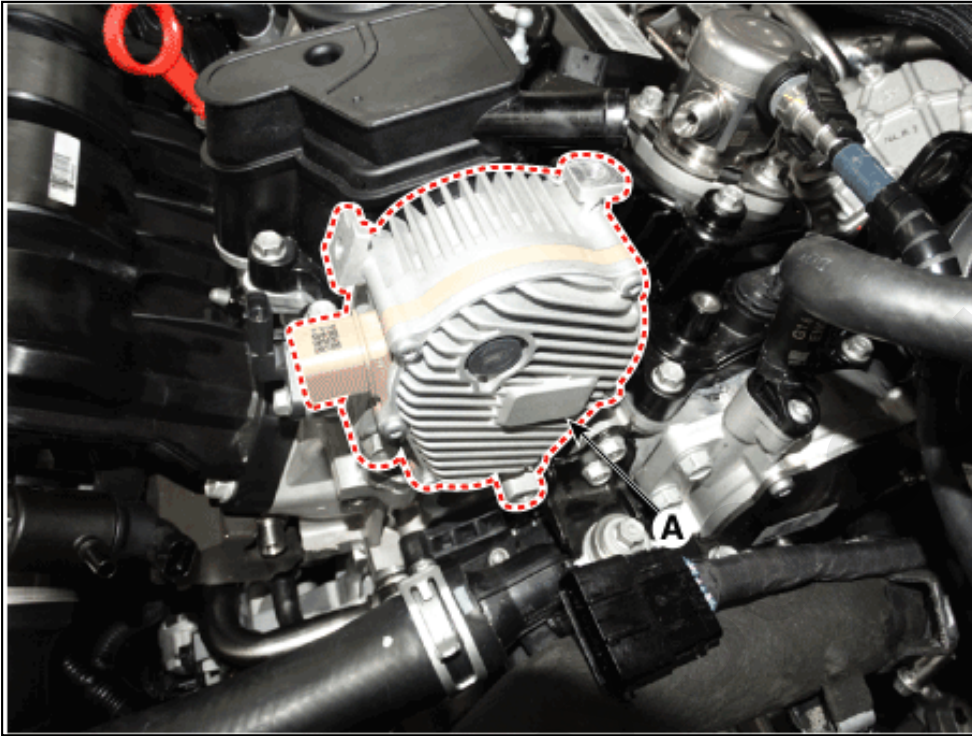


Removal

1. Turn the ignition switch OFF, and disconnect the battery negative (-) terminal.
2. Remove the air cleaner assembly.
(Refer to Engine Mechanical System - "Air Cleaner Assembly")
3. Remove the high pressure fuel pipe.
(Refer to Fuel Delivery System - "Fuel Line")
4. Remove the CVVD actuator (A) after loosening the mounting bolt.

Tightening Torque :

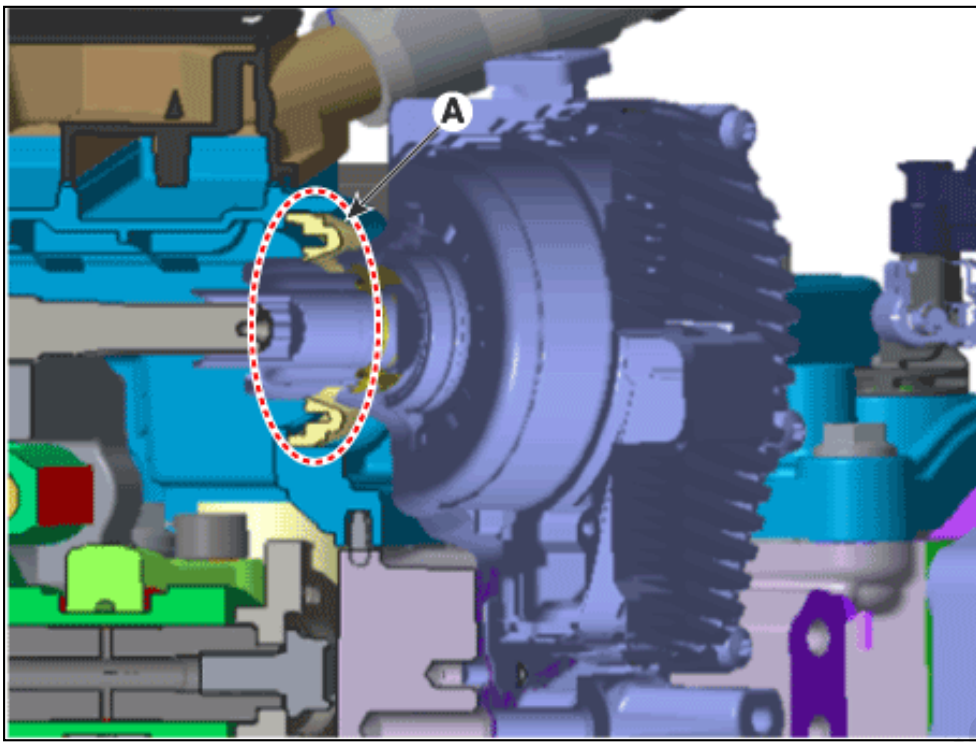
18.6 - 24.5 N.m (1.9 - 2.5 kgf.m, 13.7 - 18.0 lb-ft)



Installation



- When installing the CVVD actuator the shaft gear do not fit properly, rotate the CVVD actuator in both directions and installing it naturally.
(Do not impact when installing the component.)
- Do not damage to the component when installing the cylinder head cover oil seal (A).



- 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.

Adjustment

1. Turn the ignition switch OFF.
2. Connect the diagnostic tool to Data Link Connector (DLC).
3. Turn the ignition switch ON.
4. Select "Vehicle, Model Year, Engine, System".
5. Select "CVVD Intake Adaption".



■ Engine Control



■ System Identification



■ Resetting Adaptive Values



■ Auto Detected Configuration Reset



■ Read VIN



■ Write VIN



■ ISG TEST(Optional)



■ ETC TEST(Optional)



■ Integrated Thermal Module Coolant Filling Mode



■ GPF Service Regeneration



■ Resetting Adaptive Values after GPF replacement



■ CVVD Intake Adaptation



■ ECU Mapping Verification



■ Automatic Transaxle



■ ABS/ESP



■ Front Radar



■ Airbag(Event #1)



■ Airbag(Event #2)



Do not touch any system buttons while performing this function.

6. Perform the "CVVD Learning" refer to the diagnostic tool.

S/W Management

■ CVVD Intake Adaptation

● [CVVD learning]

This function is used to perform CVVD learning through OBD.

● [CONDITION]

1. IG. ON
2. Engine stopped
3. Vehicle speed 0km/h

[OK] Button : Optional function started

[Cancel] Button : Optional function completed

OK

Cancel



Do not touch any system buttons while performing this function.

S/W Management

■ CVVD Intake Adaptation

● [CVVD learning]

This function is used to perform CVVD learning through OBD.

●[CONDITION]

1. IG. ON
2. Engine stopped
3. Vehicle speed 0km/h

[OK] Button : Optional function started

[Cancel] Button : Optional function completed

OK

Cancel



Do not touch any system buttons while performing this function.