

INTAKE SHUTTER VALVE [SKYACTIV-D 2.2]

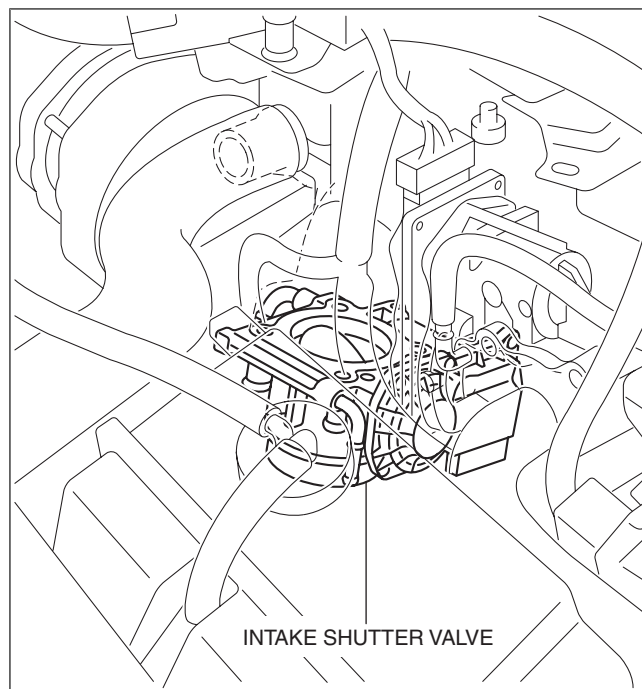
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Purpose, Function

- The intake air amount is controlled to provide better recirculation of the exhaust gas.
- The intake air amount to the engine is reduced during DPF regeneration to facilitate the increase in the exhaust gas temperature. Due to this, the particulate matter (PM) collected in the DPF is burned and eliminated.
- The valve is closed to cut the intake air when the engine switch is off to reduce the shock when the engine is turned off.

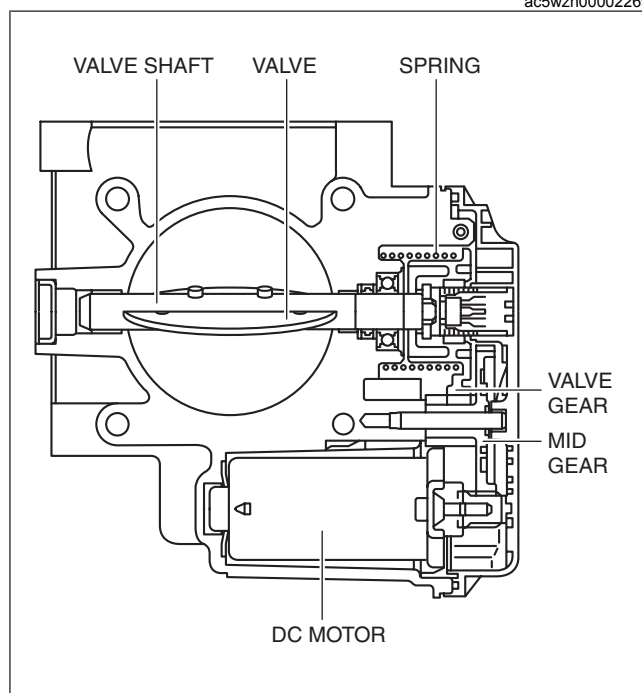
Construction

- The intake shutter valve is installed to the intake manifold.



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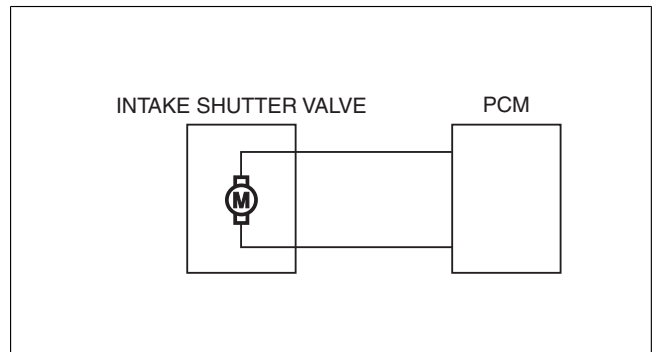
- The intake shutter valve consists of the valve shaft, valve, spring, valve gear, mid gear, and DC motor.
- The intake shutter valve has an integrated intake shutter valve position sensor. (See INTAKE SHUTTER VALVE POSITION SENSOR [SKYACTIV-D 2.2].)



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Operation

- The PCM drives the DC motor of the valve by the pulse-width modulation signal.
- If the shutter valve has a malfunction and the DC motor control is disabled, the shutter valve is fully opened by the return spring. Due to this, the air amount necessary to move the vehicle is assured.



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