

OIL CONTROL VALVE (OCV) [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

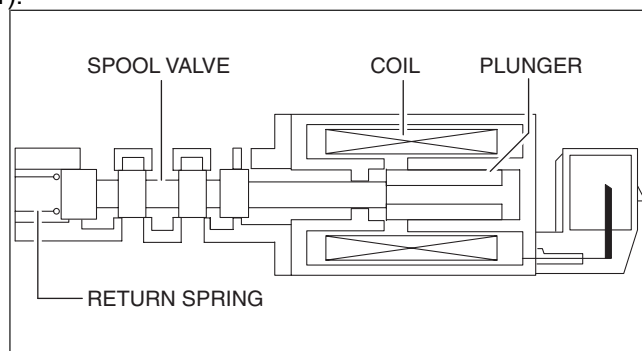
id0110h3001600

Purpose, Function

- The OCV switches the oil passage to the hydraulic variable valve timing actuator to control the opening/closing period of the exhaust valve.

Construction

- The OCV is installed to the exhaust camshaft cap (No.1).
- The OCV consists of a spool valve which switches the engine oil passage and a plunger, coil, and return spring which operate the spool valve.

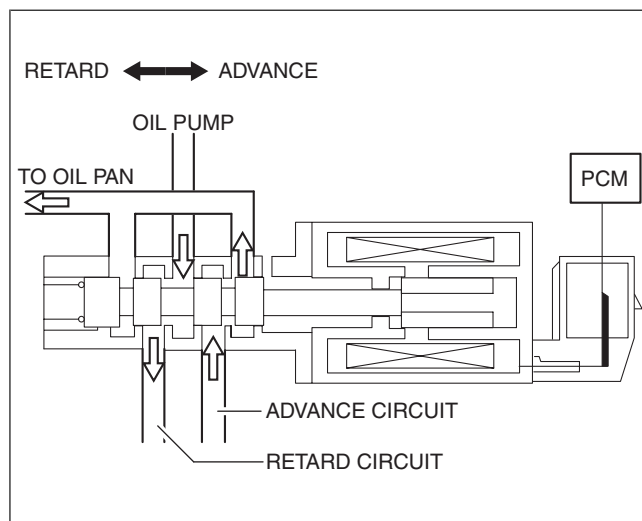


am3uun00001866

Operation

At retard

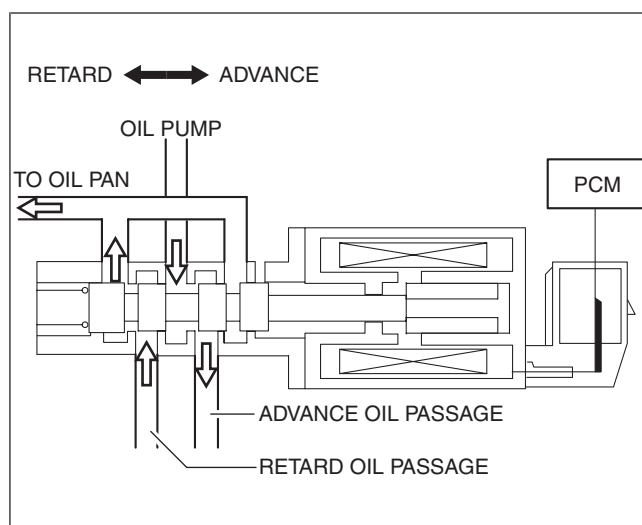
- The spool valve is moved to the retard side by the signal from the PCM and engine oil is lead to the retard oil passage of the exhaust camshaft.



am3uun00001867

At advance

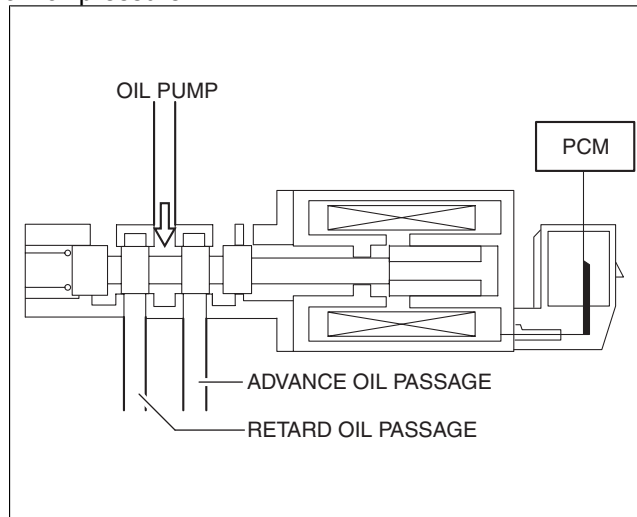
- The spool valve is moved to the advance side by the signal from the PCM and engine oil is lead to the advance oil passage of the exhaust camshaft.



am3uun00001868

Middle point maintenance

- The spool valve is moved to the closed position of the oil passage to the exhaust camshaft by the signal from the PCM.
- The construction is designed to supply a small amount of oil to the advance oil passage even while the middle point is maintained, improving holding stability while at low oil pressure.



am3uun00001869

Fail-safe

DTC	Fail-safe
P0014:00	• Performs the exhaust variable valve timing control with a maximum cam retard request.
P0015:00	• Performs the exhaust variable valve timing control with a maximum cam retard request.
P2090:00	• Performs the exhaust variable valve timing control with a maximum cam retard request.
P2091:00	• Performs the exhaust variable valve timing control with a maximum cam retard request.