



Description

Continuous Variable Valve Timing (CVVT) system advances or retards the valve timing of the intake and exhaust valve in accordance with the ECM control signal which is calculated by the engine speed and load.

By controlling CVVT, the valve overlap or underlap occurs, which in turn improves fuel efficiency, reduces exhaust gases (NOx, HC) and improves engine performance by reducing pumping loss, generating internal EGR effect, improving combustion stability, improving volumetric efficiency and increasing expansion work.

This system consists of

- the CVVT Oil Control Valve (OCV) which supplies the engine oil to the cam phaser or spills the engine oil from the cam phaser in accordance with the ECM PWM (Pulse With Modulation) control signal,
- the CVVT Oil Temperature Sensor (OTS) which measures the engine oil temperature,
- and the Cam Phaser which varies the cam phase by using the hydraulic force of the engine oil.

The engine oil which is supplied through the CVVT oil control valve varies the cam phase in the direction (Intake Advance/Exhaust Retard) or opposite direction (Intake Retard/Exhaust Advance) of the engine rotation by rotating the rotor connected with the camshaft inside the cam phaser.

CVVT Oil Control Valve (OCV) [Banks 1, 2/Intake]



CVVT Oil Control Valve (OCV) [Banks 1, 2/Exhaust]

