

Component Location



General Description

The CVVT (Continuously Variable Valve Timing) system is installed to the chain sprocket of the intake camshaft. This system controls the intake camshaft to provide the optimal valve timing for every driving condition. The ECM controls the Oil Control Valve(OCV), based on the signals output from mass air flow, throttle position and engine coolant temperature. The CVVT controller regulates the intake camshaft angle using oil pressure through the OCV. As result, the relative position between the camshaft and the crankshaft becomes optimal, and the engine torque improves, fuel economy improves, exhaust emissions decrease under overall driving conditions.

DTC Description

ECM monitors CAM phaser error while CMP signal is normally generating and vehicle is driving in 2000 ~ 3000rpm .

If the CAM phaser does not move although ECM commands OCV duty cycle ECM determines that a fault exists and a DTC is stored.

DTC Detecting Condition

Item		Detecting Condition	Possible cause
DTC Strategy		<ul style="list-style-type: none"> Determines if the phaser is stuck or has steady-state error 	<ul style="list-style-type: none"> Engine Oil OCV stuck CVVT stuck
Enable Conditions		<ul style="list-style-type: none"> CAM signal is normally generating Vehicle is on driving (2000 ~ 3000RPM) for 5 minutes. 	
Threshold value	Case 1	<ul style="list-style-type: none"> 5 CAD < Cam Actual Position < 50 CAD Duty Cycle > 90% or Duty Cycle < 10% 	
	Case 2	<ul style="list-style-type: none"> Cam Position error > 15 CAD(Difference between Actual Postion and Desire Position is more than 15°) Timing Counter > 80 	
Diagnosis Time		<ul style="list-style-type: none"> Continuous(within 5min.) 	
MIL On Condition		<ul style="list-style-type: none"> 2 Driving Cycles 	

Schematic Diagram

