

Last Modified: 6-2-2008	5.1 C	From: 200601
Model Year: 2007	Model: Camry	Doc ID: RM000000WBZ00YX
Title: 2GR-FE ENGINE CONTROL SYSTEM: SFI SYSTEM: P0340: Camshaft Position Sensor Circuit Malfunction (2007 Camry)		

DTC	P0340	Camshaft Position Sensor Circuit Malfunction
------------	--------------	---

DTC	P0342	Camshaft Position Sensor "A" Circuit Low Input (Bank 1 or Single Sensor)
------------	--------------	---

DTC	P0343	Camshaft Position Sensor "A" Circuit High Input (Bank 1 or Single Sensor)
------------	--------------	--

DTC	P0345	Camshaft Position Sensor "A" Circuit (Bank 2)
------------	--------------	--

DTC	P0347	Camshaft Position Sensor "A" Circuit Low Input (Bank 2)
------------	--------------	--

DTC	P0348	Camshaft Position Sensor "A" Circuit High Input (Bank 2)
------------	--------------	---

DESCRIPTION

The intake camshaft's Variable Valve Timing (VVT) sensor (G signal) consists of a magnet and MRE (Magneto Resistance Element).

The VVT camshaft drive gear has a sensor plate with 3 teeth on its outer circumference. When the gear rotates, changes occur in the air gaps between the sensor plate and MRE, which affects the magnetic field. As a result, the resistance of the MRE material fluctuates. The VVT sensor converts the gear rotation data to pulse signals, uses the pulse signals to determine the camshaft angle, and sends it to the ECM.

The crankshaft angle sensor plate has 34 teeth. The pickup coil generates 34 signals for each engine revolution. Based on combination of the G signal and NE signal, the ECM detects the crankshaft angle. Then the ECM uses this data to control fuel injection time and injection timing. Also, based on the NE signal, the ECM detects the engine speed.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
------------	-------------------------	--------------

