DI6AY–03

DTC	P0340/12	Camshaft Position Sensor Circuit Malfunction

CIRCUIT DESCRIPTION

The camshaft position sensor (G2 signal) consists of a signal plate and a pickup coil.
The G2 signal plate has 1 tooth on its outer circumference, and is mounted on the left bank camshafts.
When the camshafts rotate, the protrusion on the signal plate and the air gap on the pickup coil change, causing fluctuations in the magnetic field and generating an electromotive force in the pickup coil.
The NE signal plate has 34 teeth and is mounted on the crankshaft. The NE signal sensor generates 34 signals for every engine revolution. The engine (and ECT) ECU detects the standard crankshaft angle based on the G2 signal and the actual crankshaft angle and the engine speed by the NE signals.

DTC No.	DTC Detecting Condition	Trouble Area
P0340/12	No camshaft position sensor signal to engine (and ECT) ECU during cranking	• Open or short in camshaft position sensor circuit • Camshaft position sensor • Engine (and ECT) ECU
	No camshaft position sensor signal to engine (and ECT) ECU with engine speed 600 rpm or more	

WIRING DIAGRAM

Refer to DTC P0335/12, 13 on page DI–65.

INSPECTION PROCEDURE

HINT:
Read the freeze frame data on the hand–held tester, which is recorded when a malfunction is detected on the engine. When troubleshooting, it is useful to determine whether the vehicle was running or stopped, the engine warmed up or not, the air–fuel ratio lean or rich, etc. at the time of a malfunction.

1	**Check resistance of camshaft position sensor (See Pub. No. RM519E, page IG–3).**

Reference: INSPECTION USING OSCILLOSCOPE (See page DI–65 on step 1)

NG → **Replace camshaft position sensor.**

OK

2	**Check for open and short in harness and connector between engine (and ECT) ECU and camshaft position sensor (See page IN–20).**

NG → **Repair or replace harness or connector.**

OK

3	**Inspect sensor installation.**

NG → **Tighten sensor.**

OK

Check and replace engine (and ECT) ECU (See page IN–20).