DTC P0505 IDLE AIR CONTROL SYSTEM

CIRCUIT DESCRIPTION

The idle speed is controlled by the Electric Throttle Control System (ETCS).
ETCS is composed of the throttle motor to operate the throttle valve and the throttle position sensor to detect the opening angle of the throttle valve, the accelerator pedal position sensor to detect the accelerator pedal position, the ECM to control the ETCS, and the one valve type throttle body.
The ECM controls the throttle motor to provide the proper throttle valve opening angle for the target idle speed.

DTC No.	DTC Detection Condition	Trouble Area
P0505	Idle speed continues to vary greatly from target speed (2 trip detection logic)	• Electric throttle control system • Air induction system • PCV hose connection

INSPECTION PROCEDURE

HINT:
Read freeze frame data using the Intelligent Tester II, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air–fuel ratio was lean or rich, etc. at the time of the malfunction.

1 CHECK OTHER DTC OUTPUT(BESIDES DTC P0505)

(a) Connect a Intelligent Tester II to the DLC3.
(b) Turn the ignition switch to ON and turn the tester ON.
(c) Select the following menu items: Powertrain / Engine and ECT / DTC.
(d) Read DTCs.
Result:

Display (DTC output)	Proceed to
Only P0505 is output	A
P0505 and other DTCs are output	B

HINT:
If any other codes besides P0505 are output, perform the troubleshooting for those DTCs first.

B → **GO TO RELEVANT DTC CHART**

A

2 CHECK CONNECTION OF PCV HOSE

NG → **REPAIR OR REPLACE PCV HOSE**

OK

3	CHECK AIR INDUCTION SYSTEM

(a) Check for vacuum leaks in air induction system.

NG → REPAIR OR REPLACE AIR INDUCTION SYSTEM

OK

CHECK ELECTRIC THROTTLE CONTROL SYSTEM