

DTC	P0505	Idle Air Control System
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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, 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 make the throttle valve opening angle properly for the target idle speed.

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

INSPECTION PROCEDURE

HINT:

Read freeze frame data using hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, this 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	Are there any other codes (besides DTC P0505) being output?
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YES

Go to relevant DTC chart (See page [DI-22](#)).

NO

2	Check connection of PCV piping.
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NG

Repair or replace PCV piping.

OK

3 Check air induction system (See page [SF-1](#)).

NG

Repair or replace.

OK

4 Check electric throttle control system (See page [SF-33](#)).

NG

Replace electric throttle control system.

OK

5 Check for open and short in harness and connector between electric position sensor and ECM (See page [IN-36](#)).

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-36](#)).