

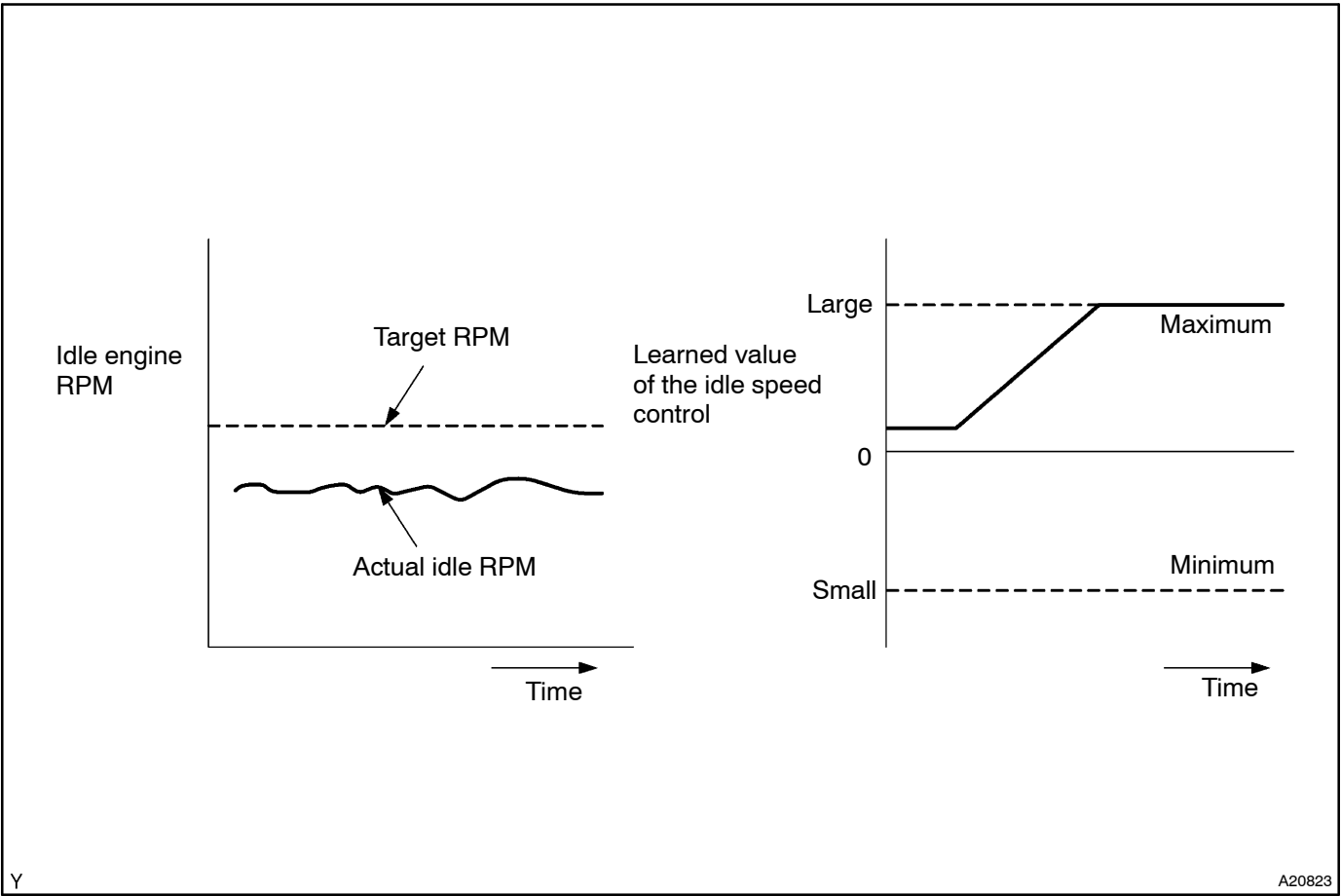
DTC	P0505	Idle Air Control System
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CIRCUIT DESCRIPTION

The engine control ECU regulates the idle speed by opening and closing the throttle valve using the Electronic Throttle Control System (ETCS). If the actual idle RPM varies more than a specified value of the idle speed control five times. And idle speed control learned value remains at the maximum or remains at minimum five times or more during a trip, the engine control ECU concludes that there is a problem with the idle speed control function. The engine control ECU will turn on the check engine warning light and a DTC is set. Example:

If the actual idle RPM varies from the target idle RPM by more than 200 rpm* five times during a drive cycle, the engine control ECU will turn on the check engine warning light and a DTC is set.

*: RPM threshold varies with engine load.



DTC No.	DTC Detecting Condition	Trouble Area
P0505	Idle speed continues to vary greatly from target speed (2 trip detection logic)	<ul style="list-style-type: none">• Electric throttle control system• Air induction system• PCV hose connection

INSPECTION PROCEDURE

HINT:

- When the throttle position is slightly opened (the accelerator pedal is slightly depressed) because a floor carpet is overlapped on the accelerator pedal, or if not fully releasing the accelerator pedal, etc., DTC P0505 will possibly be detected.
- Read freeze frame data using the hand-held tester. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air-fuel ratio was lean or rich, as well as other data from the time when a malfunction occurred.

1	Are there any other codes (besides P0505) being output?
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PREPARATION:

- Connect the hand-held tester to the DLC3.
- Turn the ignition switch ON and push the hand-held tester main switch ON.
- When using hand-held tester, enter the following menus: DIAGNOSIS / OBD/MOBD / DTC INFO / CURRENT CODES.

CHECK:

Read the DTC using the hand-held tester.

RESULT:

Display (DTC Output)	Proceed to
P0505	A
"P0505" and other DTCs	B

HINT:

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

B

Go to relevant DTC chart ([See page DI-19](#)).

A

2	Check connection of PCV piping.
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NG

Repair or replace PCV piping.

OK

3 Check air induction system (See Pub. No. RM630E, page FI –1).

CHECK:

Check for vacuum leaks in air induction system.

NG

Repair or replace air induction system.

OK

**Check electric throttle control system
(See Pub. No. RM630E, page FI –40).**