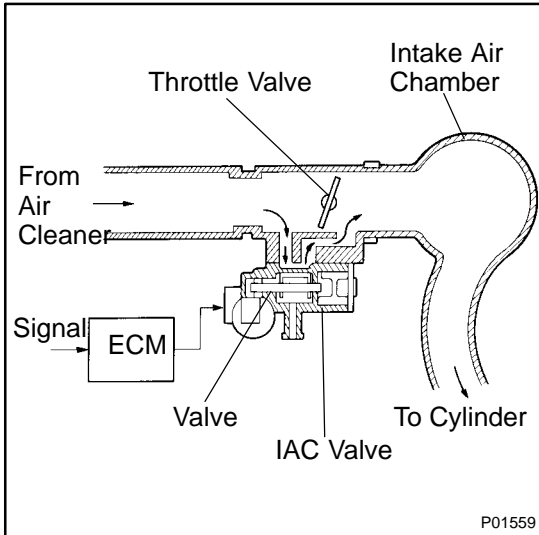


DTC	P0505	Idle Control System Malfunction
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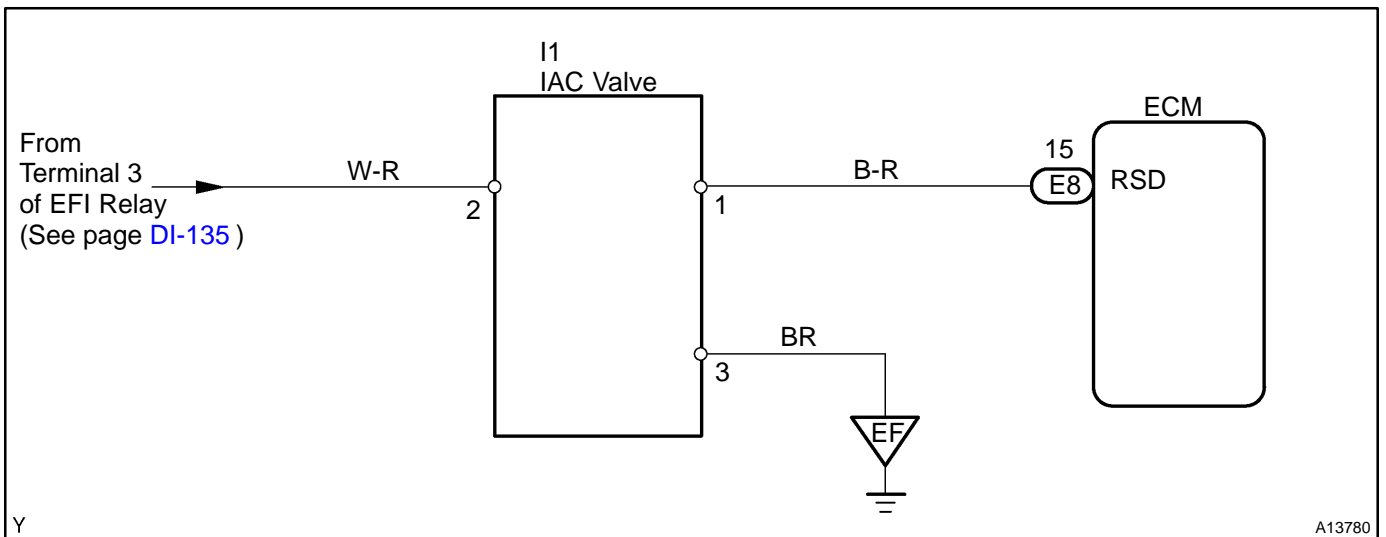
CIRCUIT DESCRIPTION



The rotary solenoid type IAC valve is located in front of the intake air chamber and intake air bypassing the throttle valve is directed to the IAC valve through a passage. In this way the intake air volume bypassing the throttle valve is regulated, controlling the engine speed. The ECM operates only the IAC valve to perform idle-up and provide feedback for the target idling speed.

DTC No.	DTC Detection Condition	Trouble Area
P0505	Idle speed continues to vary greatly from target speed (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in IAC valve circuit • IAC valve is stuck or closed • Open or short in A/C switch circuit • Air induction system • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool, 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 engine idle speed.
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PREPARATION:

- (a) Warm up the engine to normal operating temperature.
- (b) Switch off the all accessories.
- (c) Switch off the A/C.
- (d) Shift the transmission into the N or neutral position.
- (e) Connect the OBD II scan tool or TOYOTA hand-held tester to the DLC3 on the vehicle.
- (f) Using SST, connect terminals TE1 and E1 of the DLC1.

SST 09843-18020

CHECK:

Check the difference of engine speed between the ones, less than 5 sec. and more than 5 sec. after connecting terminals TE1 and E1 of the DLC1.

OK:

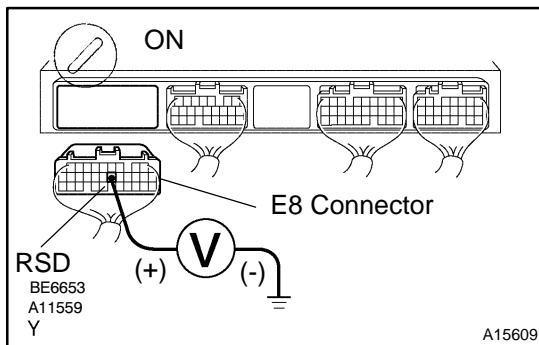
Difference of engine speed: More than 100 rpm

OK

Go to step 6.

NG

2	Check voltage between terminals RSD of ECM connector and body ground.
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**PREPARATION:**

- (a) Remove the glove compartment (See page [SF-49](#)).
- (b) Disconnect the E8 connector from the ECM.
- (c) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals RSD of ECM connector and the body ground,

OK:

Voltage: 9 - 14 V

OK

Go to step 5.

NG

3	Check IAC valve (See page SF-32).
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NG

Replace IAC valve.

OK

Check for open and short in harness and connector between engine room R/B and IAC valve, and IAC valve and ECM (See page [IN-28](#)).

4 Check operation of IAC valve (See page [SF-35](#)).

NG Repair or replace IAC valve.

OK

5 Check blockage of IAC valve and passage to bypass throttle valve.

NG Repair or replace IAC valve.

OK

Check and replace ECM (See page [IN-28](#)).

6 Check for A/C signal circuit (See page [AC-14](#)).

NG Repair or replace.

OK

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