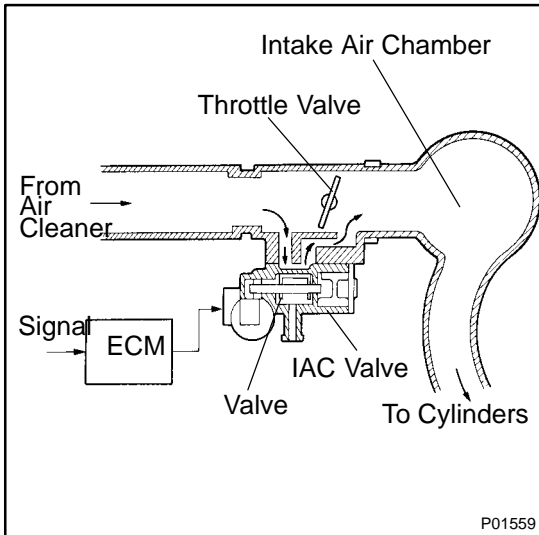


DTC	P0505	Idle Air Control System (w/o ETCS)
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DTC	P0511	Idle Air Control Circuit (w/o ETCS)
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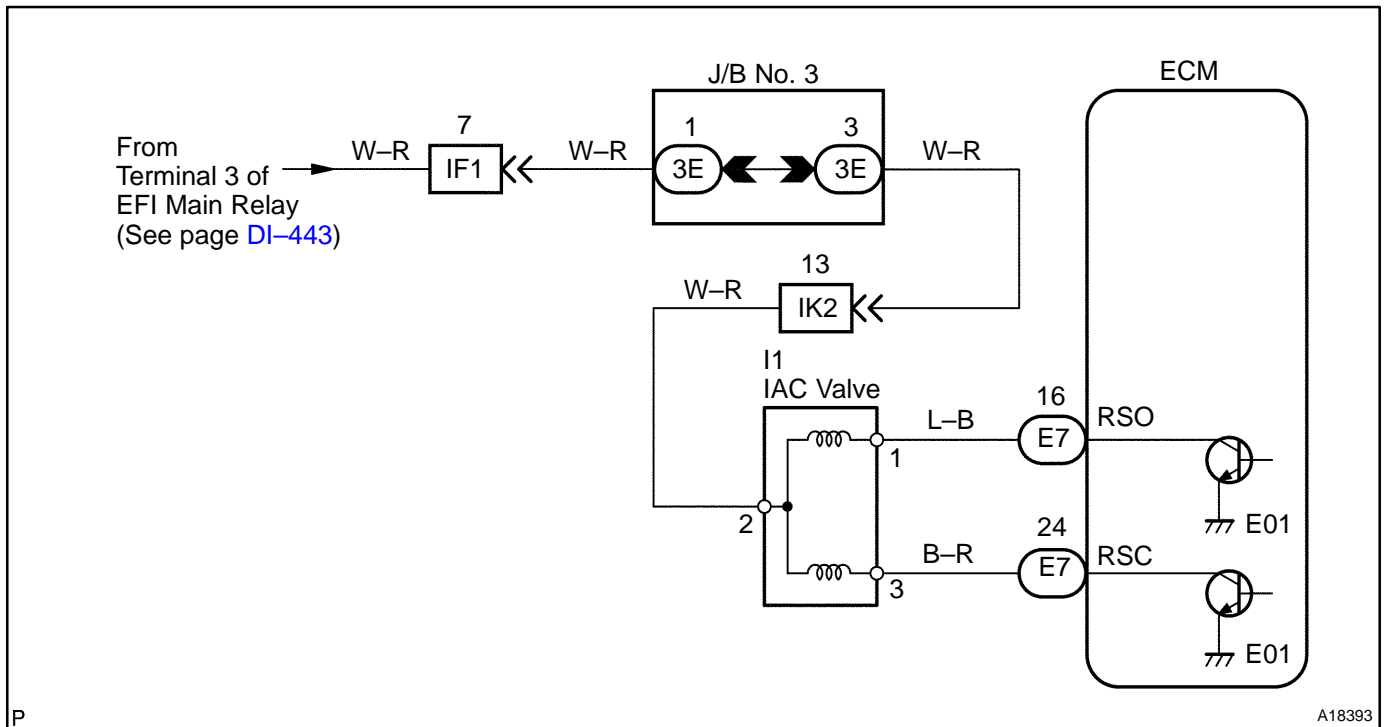
CIRCUIT DESCRIPTION



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 P0511	Idle speed continues to vary greatly from target speed (2 trip detection logic)	<ul style="list-style-type: none"> • PCV hose connection • PCV hose • Open or short in IAC valve circuit • IAC valve is stuck or closed • Open or short in A/C signal circuit • Air induction system • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- In case of using the hand-held tester, start the inspection from step 1 and in case of not using the hand-held tester, start from step 2.
- Read freeze frame data using the hand-held tester or the 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 idle speed.
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PREPARATION:

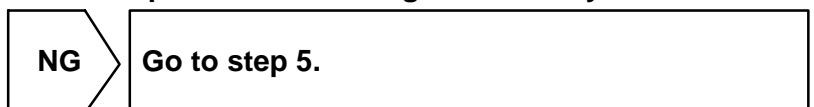
- Warm up the engine to normal operating temperature.
- Switch off all the accessories.
- Switch off the A/C.
- Shift the transmission into the N or neutral position.
- Connect the hand-held tester or OBD II scan tool to the DLC3 on the vehicle.
- Select the ACTIVE TEST mode on the hand-held tester.

CHECK:

Check the engine speed when the ISC valve is operated by hand-held tester.

OK:

Engine speed increases and decreases in response to the change of ISC duty ratio.



2 Check air induction system (See page SF-1).

NG Repair or replace.

OK

3 Check connection of PCV hose.

NG Repair or replace PCV hose.

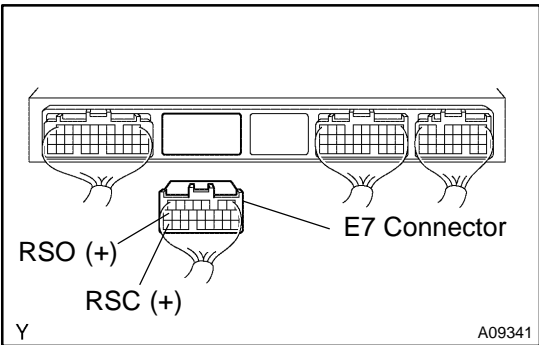
OK

4 Check A/C signal circuit (See page AC-14).

NG Repair or replace.

OK

5 Check voltage terminals RSO, RSC of ECM connector and body ground.



- PREPARATION:**
- (a) Remove the glove compartment (See page SF-64).
 - (b) Disconnect the E7 connector from the ECM.
 - (c) Turn the ignition switch ON.

CHECK:
 Measure the voltage between terminals RSO, RSC of the ECM connector and the body ground.

OK:
Voltage: 9 – 14 V

OK Go to step 7.

NG

6 Check IAC valve (See page [SF-39](#)).

NG

Replace IAC valve.

OK

Check for open and short in harness and connector between EFI main relay (Marking: EFI) and IAC valve, and IAC valve and ECM (See page [IN-28](#)).

7 Check operation of IAC valve (See page [SF-43](#)).

NG

Repair or replace IAC valve.

OK

8 Check operation of IAC valve and passage to bypass throttle valve.

NG

Repair or replace IAC valve.

OK

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