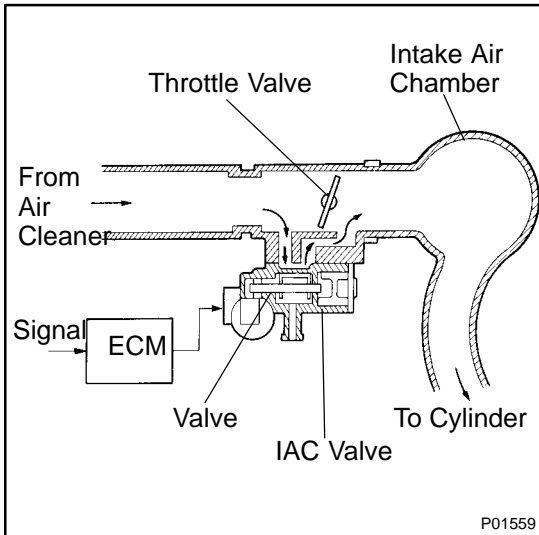


<b>DTC</b>	<b>P0505</b>	<b>Idle Air Control System</b>
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<b>DTC</b>	<b>P0511</b>	<b>Idle Air Control Circuit</b>
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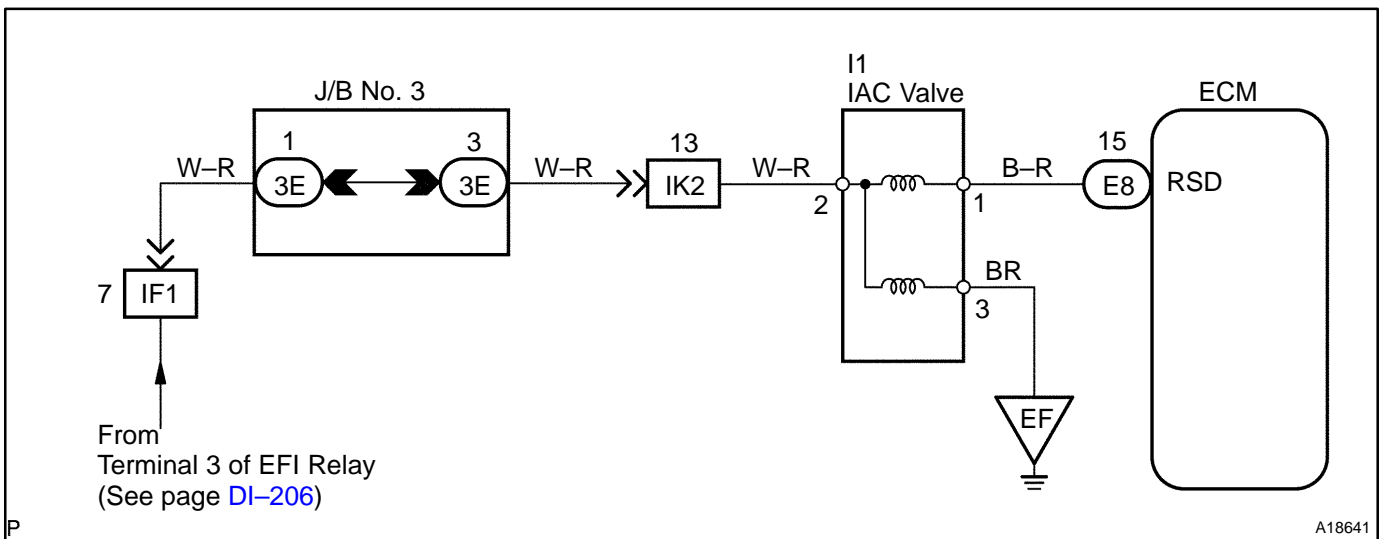
**CIRCUIT DESCRIPTION**



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	<ul style="list-style-type: none"> <li>• PCV hose connection</li> <li>• PCV hose</li> <li>• Open or short in IAC valve circuit</li> <li>• IAC valve is stuck or closed</li> <li>• Open or short in A/C switch circuit</li> <li>• Air induction system</li> <li>• ECM</li> </ul>

**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.

<b>1</b>	<b>Check engine idle speed.</b>
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### PREPARATION:

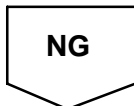
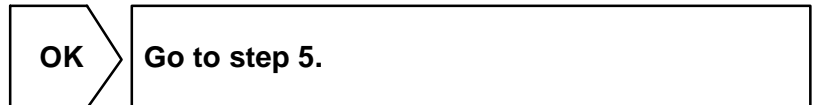
- Warm up the engine to normal operating temperature.
- Switch off the all accessories.
- Switch off the A/C.
- Shift the transmission into the N or neutral position.
- Connect the hand-held tester or OBD II scan tool to the DLC3 on the vehicle.
- Select the ACTIVE TEST mode on the hand-held tester.

### CHECK:

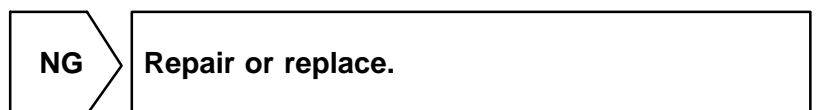
Check the engine speed when the ISC valve is operated by hand-held tester.

### OK:

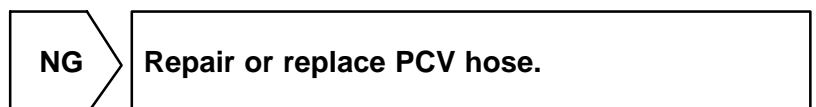
Engine speed increases and decreases in response to the change of ISC duty ratio.



<b>2</b>	<b>Check air induction system (See page <a href="#">SF-1</a>).</b>
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<b>3</b>	<b>Check connection of PCV hose.</b>
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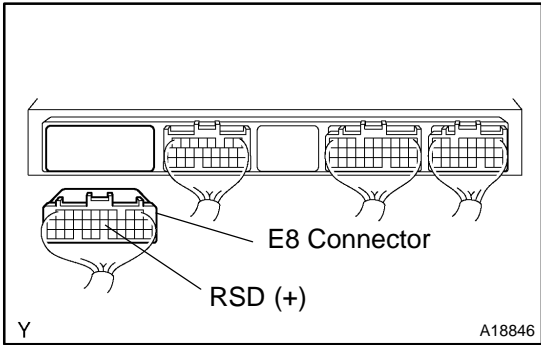


4 Check for A/C signal circuit (See page AC-14).

NG Repair or replace.

OK

5 Check voltage between terminals RSD of ECM connector and body ground.



**PREPARATION:**  
 (a) Remove the glove compartment (See page SF-55).  
 (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 7.

NG

6 Check IAC valve (See page SF-33).

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).

7 Check operation of IAC valve (See page SF-36).

NG Repair or replace IAC valve.

OK

<b>8</b>	<b>Check blockage of IAC valve and passage to bypass throttle valve.</b>
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<b>NG</b>	<b>Repair or replace IAC valve.</b>
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<b>OK</b>
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<b>Check and replace ECM (See page <a href="#">IN-28</a>).</b>
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