**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.

**WIRING DIAGRAM**

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From Terminal 3 of EFI Relay
(See page DI–285)
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INSPECTION PROCEDURE

HINT:
Read freeze frame data using 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 idle speed.

PREPARATION:
(a) Warm up the engine to normal operating temperature.
(b) Switch off all the accessories.
(c) Switch off the A/C.
(d) Shift the transmission into the N or neutral position.
(e) Connect the hand–held tester or OBD II scan tool to the DLC3 on the vehicle.

CHECK:
Check the difference of engine speed between the ones, less than 5 seconds and more than 5 seconds.

OK:
Difference of engine speed: More than 100 rpm

NG
Go to step 7.

OK

2 Check connection of PCV hose.

NG
Repair or replace PCV hose.

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

**PREPARATION:**
(a) Remove the glove compartment (See page SF–58).
(b) Disconnect the E8 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 5.

NG

4 Check IAC valve (See page SF–34).

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).

5 Check operation of IAC valve (See page SF–38).

NG → Repair or replace IAC valve.

OK

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

NG → Repair or replace IAC valve.
Check and replace ECM (See page IN–28).

7 Check A/C signal circuit (See page AC–14).

OK

NG Repair or replace.

OK

Check air induction system (See page SF–1).