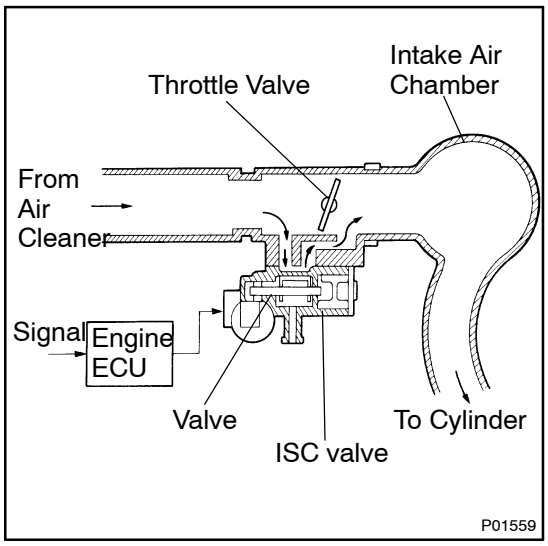
DTC	P0505	Idle Control System Malfunction

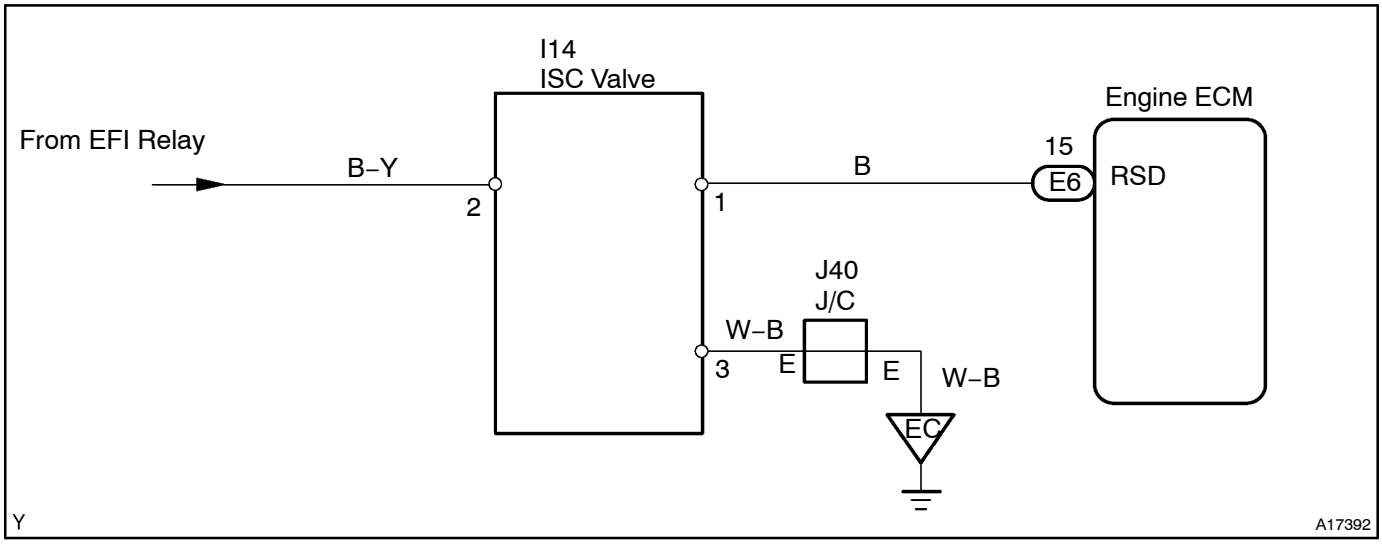
CIRCUIT DESCRIPTION



The rotary solenoid type ISC valve is located in front of the intake air chamber and intake air bypassing the throttle valve is directed to the ISC valve through a passage.
In this way the intake air volume bypassing the throttle valve is regulated, controlling the engine speed.
The engine ECM operates only the ISC 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)	• Open or short in ISC valve circuit • ISC valve is stuck or closed • Open or short in A/C switch circuit • Air induction system • Engine ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Read freeze frame data using the hand–held tester. because 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.**

PREPARATION:

(a) Warm up the engine to the normal operating temperature.
(b) Switch off the all accessories.
(c) Switch off the A/C.
(d) Shift the transmission into the N or P position.
(e) Connect the hand–held tester to the DLC3 oF 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 seconds and more than 5 seconds. after connecting terminals TE1 and E1 of the DLC1.

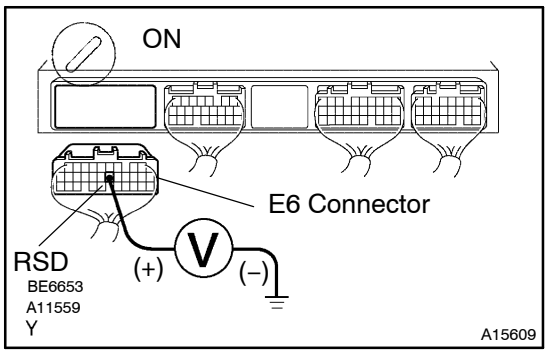
OK:

Difference of engine speed: More than 100 rpm

OK → **Go to step 6.**

NG

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



PREPARATION:

(a) Remove the glove compartment.
(b) Disconnect the E6 connector from the engine ECM.
(c) Turn the ignition switch ON.

CHECK:

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

OK:

Voltage: 9 – 14 V

OK → **Go to step 5.**

NG

3	Check ISC valve.

NG → Replace ISC valve.

OK

Check for open and short in harness and connector between engine room R/B and ISC valve,and ISC valve and engine ECM (See page IN–19).

4	Check operation of ISC valve.

NG → Repair or replace ISC valve.

OK

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

NG → Repair or replace ISC valve.

OK

Check and replace engine ECM (See page IN–19).

6	Check for A/C signal circuit.

NG → Repair or replace.

OK

Check air induction system (See page FI–1 of Pub. No. RM584E).