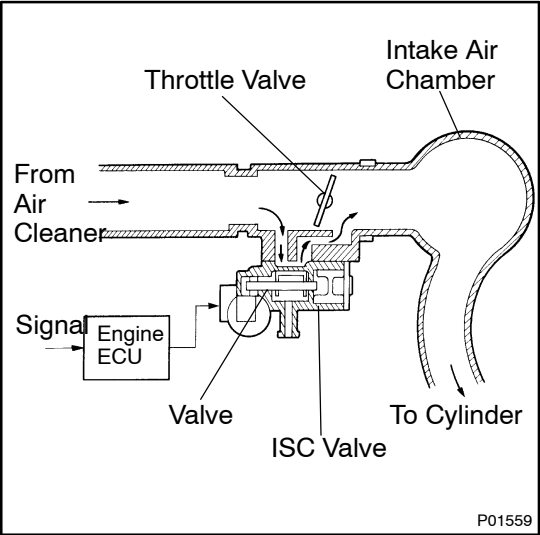


DTC	P0505/33	Idle Control System Malfunction
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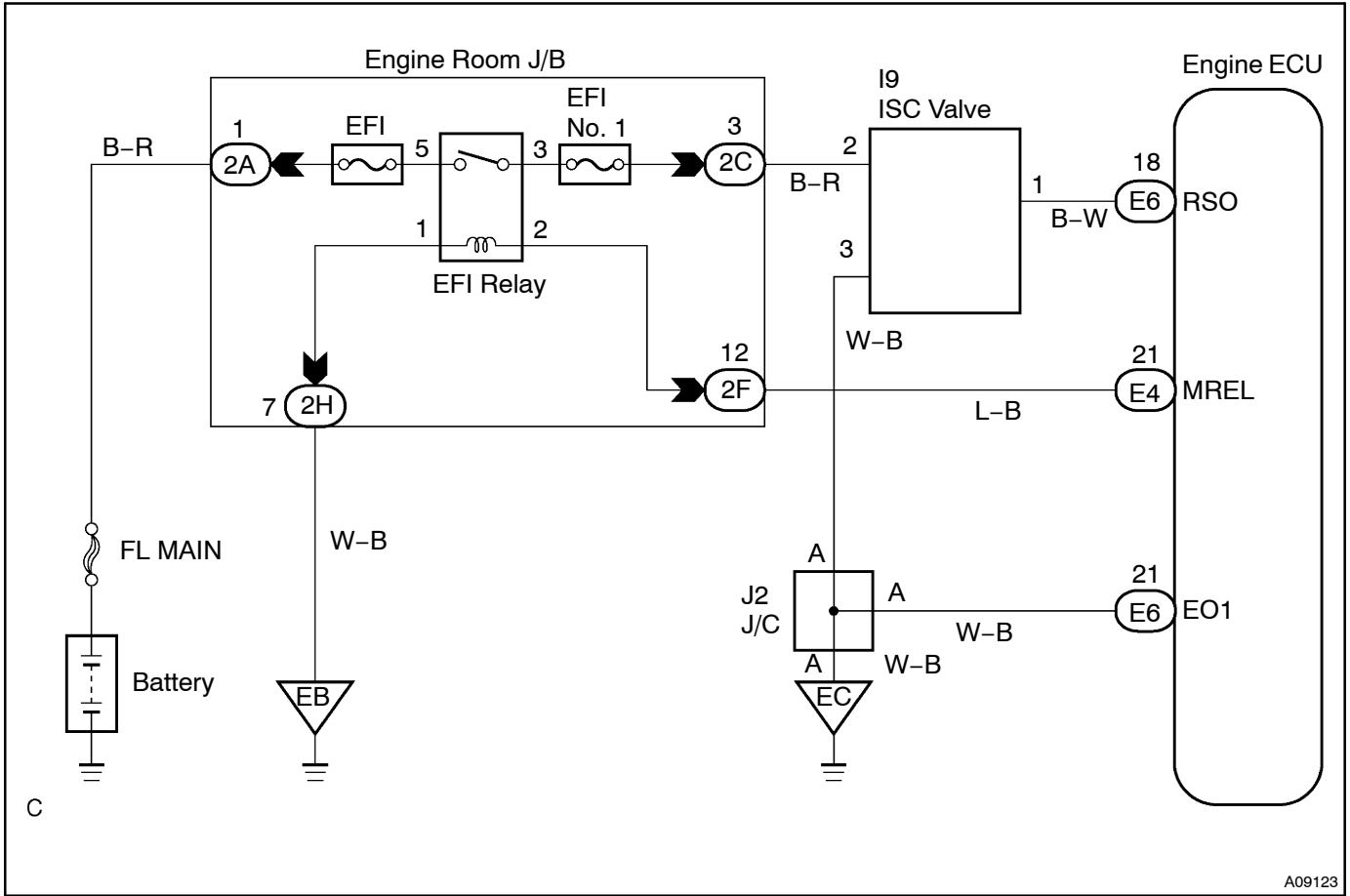
CIRCUIT DESCRIPTION



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 ECU operates only the ISC valve to perform idle-up and provide feedback for the target idling speed.

DTC No.	DTC Detecting Condition	Trouble Area
P0505/33	Idle speed continues to vary greatly from the target speed (2 trip detection logic)	•ISC valve is stuck or closed •Open or short in ISC valve circuit •Open or short in A/C switch circuit •Air induction system •Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using hand-held tester. Because freeze frame records the engine conditions when the malfunction is detected, when troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

When using hand-held tester

1	Check operation of the ISC valve.
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PREPARATION:

- Connect the hand-held tester to the DLC3.
- Turn the ignition switch ON and push the hand-held tester main switch ON.
- Select the active test mode on the hand-held tester.

CHECK:

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

OK:

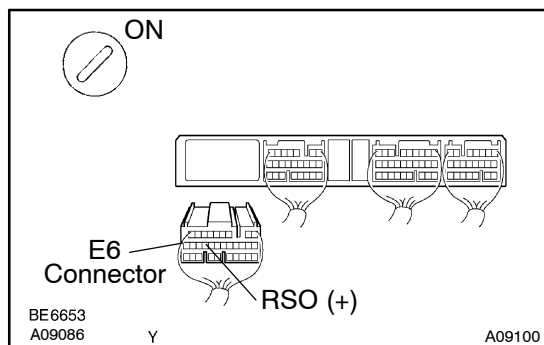
Engine speed is increased and decreased in response to change of ISC duty ratio.

OK

Check for intermittent problems
(See page DI-4).

NG

2 Check voltage between terminals RSO of engine ECU connector and body ground.



PREPARATION:

- (a) Remove the engine ECU cover.
- (b) Disconnect the E6 connector of engine ECU.
- (c) Turn the ignition switch ON.

CHECK:

Measure voltage between terminals RSO of the engine ECU connector and body ground,

OK:

Voltage: 9 – 14 V

OK

Go to step 4.

NG

3 Check ISC valve (See page FI-48).

NG

Replace ISC valve.

OK

Check for open and short in harness and connector between engine room J/B and ISC valve and engine ECU (See page IN-20).

4 Check operation of the ISC valve (See page FI-44).

NG

Repair or replace ISC valve.

OK

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

NG

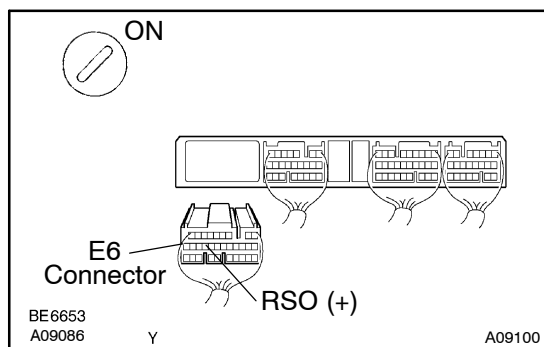
Repair or replace ISC valve.

OK

**Check and replace engine ECU
(See page IN-20).**

When not using hand-held tester

1 Check voltage between terminals RSO of engine ECU connector and body ground.



PREPARATION:

- (a) Remove the engine ECU cover.
- (b) Disconnect the E6 connector of engine ECU.
- (c) Turn the ignition switch ON.

CHECK:

Measure voltage between terminals RSO of the engine ECU connector and body ground,

OK:

Voltage: 9 – 14 V

OK

Go to step 3.

NG

2 Check ISC valve (See page FI-48).

NG

Replace ISC valve.

OK

Check for open and short in harness and connector between engine room J/B and ISC valve and engine ECU (See page IN-20).

3 Check operation of the ISC valve ([See page FI-44](#)).

NG

Repair or replace ISC valve.

OK

4 Check the blockage of ISC valve and the passage to bypass the throttle valve.

NG

Repair or replace ISC valve.

OK

Check and replace engine ECU
([See page IN-20](#)).