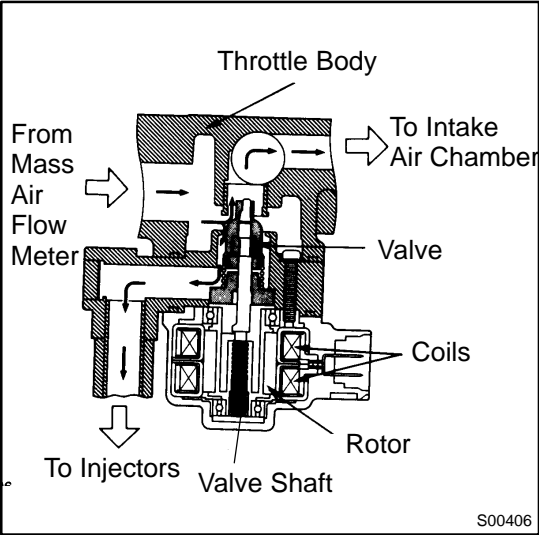


DTC	P0505	Idle Control System Malfunction
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CIRCUIT DESCRIPTION



The step motor type IAC valve is located in front of the intake air chamber. Intake air bypassing the throttle valve is directed to the IAC valve through a passage. A step motor is built into the IAC valve. It consists of 4 coils, a magnetic rotor, valve shaft and valve.

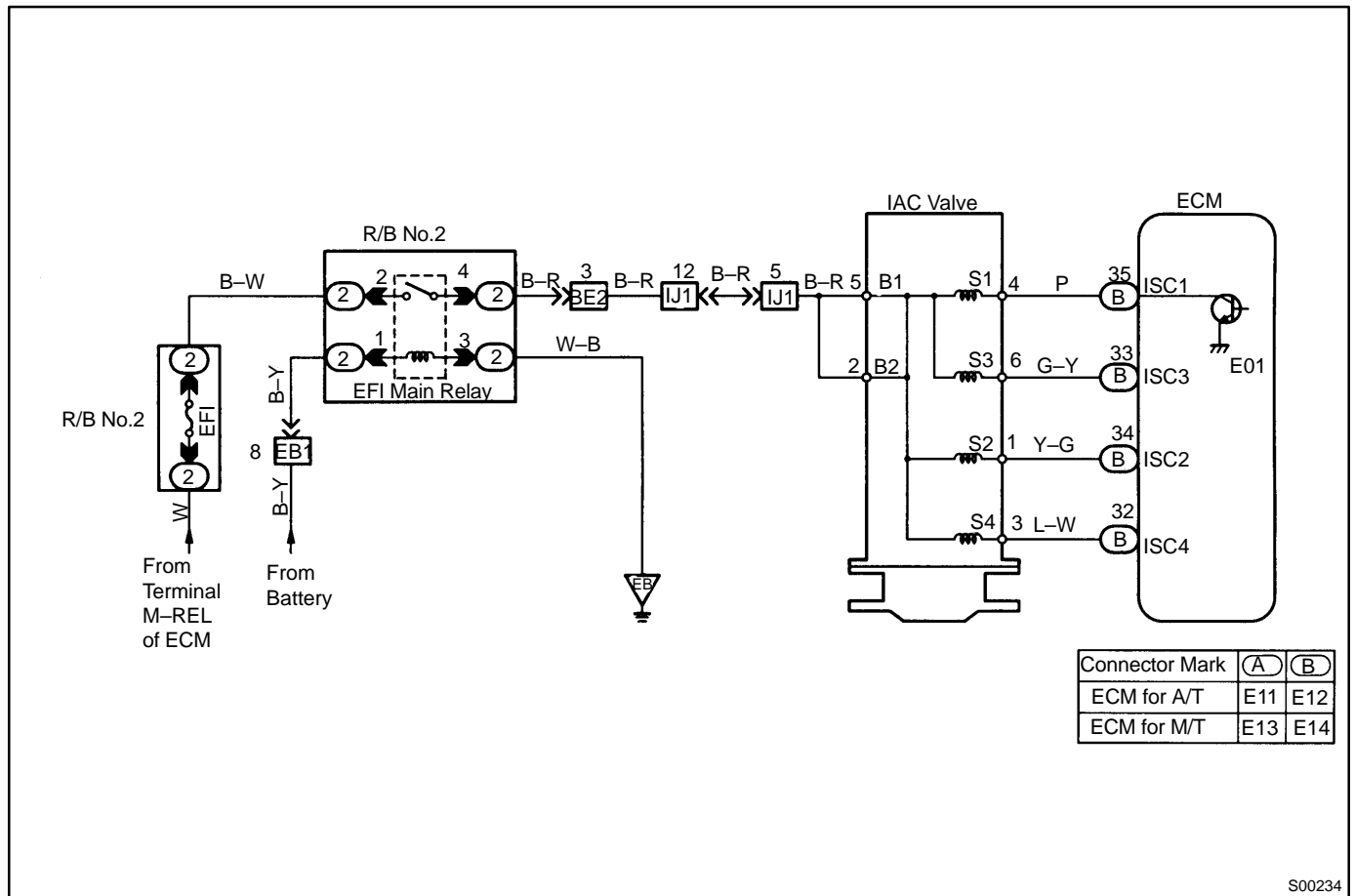
When current flows to the coils due to signals from the ECM, the rotor turns and moves the valve shaft forward or backward, changing the clearance between the valve and valve seat. In this way the intake air volume bypassing the throttle valve is regulated, controlling the engine speed.

There are 125 possible positions to which the valve can be opened.

Intake air bypassing the throttle valve is also distributed to the injectors of each cylinder through the passage to promote atomization of the fuel.

DTC No.	DTC Detecting Condition	Trouble Area
P0505	Idle speed continues to vary greatly from the target speed (2 trip detection logic)	<ul style="list-style-type: none">• IAC valve is stuck or closed• Open or short in IAC valve circuit• Open or short in A/C signal circuit• Air intake (hose loose)

WIRING DIAGRAM

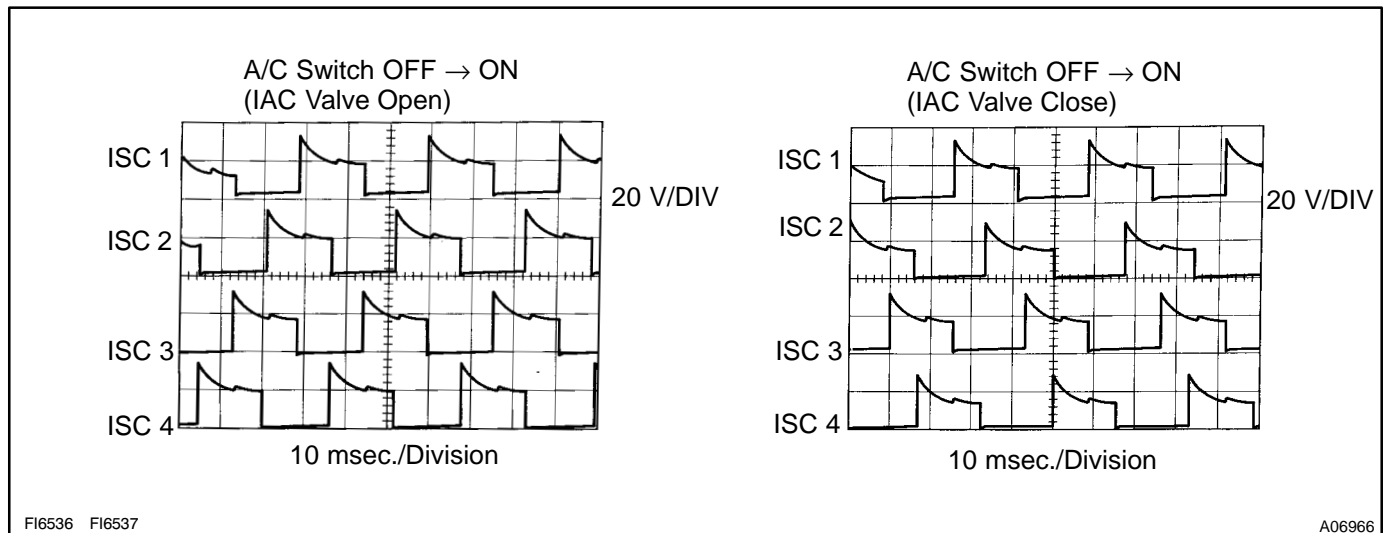


Reference: INSPECTION USING OSCILLOSCOPE

With engine idling measure waveforms between terminals ISC1, ISC2, ISC3, ISC4 and E01 of ECM when A/C switch ON or OFF.

HINT:

The correct waveforms are as shown.



INSPECTION PROCEDURE

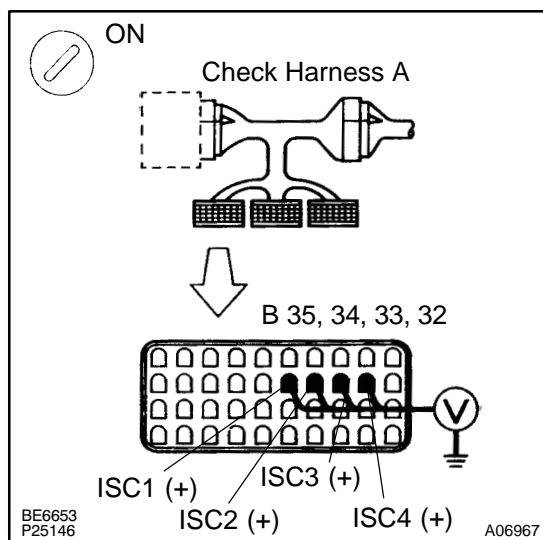
1 Check air induction system (See page SF-1).

NG

Repair or replace.

OK

2 Check voltage terminals ISC1, ISC2, ISC3, ISC4 of ECM connector and body ground.

**PREPARATION:**

(a) Connect Check Harness A to the connectors on the wire harness side (See page DI-18).

HINT:

The other side of Check Harness A is not connected to the ECM terminals.

(b) Turn ignition switch ON.

CHECK:

Measure voltage between terminals ISC1, ISC2, ISC3, ISC4 of ECM connector and body ground.

OK:

Voltage: 9 – 14 V

OK

Go to step 4.

NG

3 Check IAC valve (See page SF-50).

NG

Replace IAC valve.

OK

Check for open and short in harness and connector between EFI main relay (Marking: EFI MAIN) and IAC valve, IAC valve and ECM (See page IN-29).

4	Check operation of the IAC valve.
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NG	Repair or replace IAC valve.
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OK

Check and replace ECM (See page [IN-29](#)).