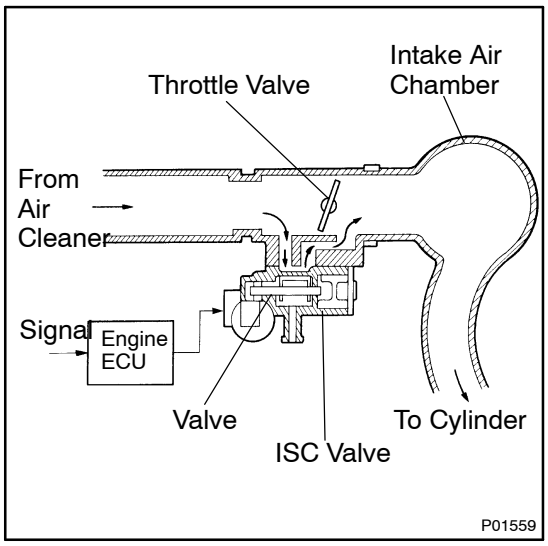
DI17J–07

DTC	33	Idle Speed Control System

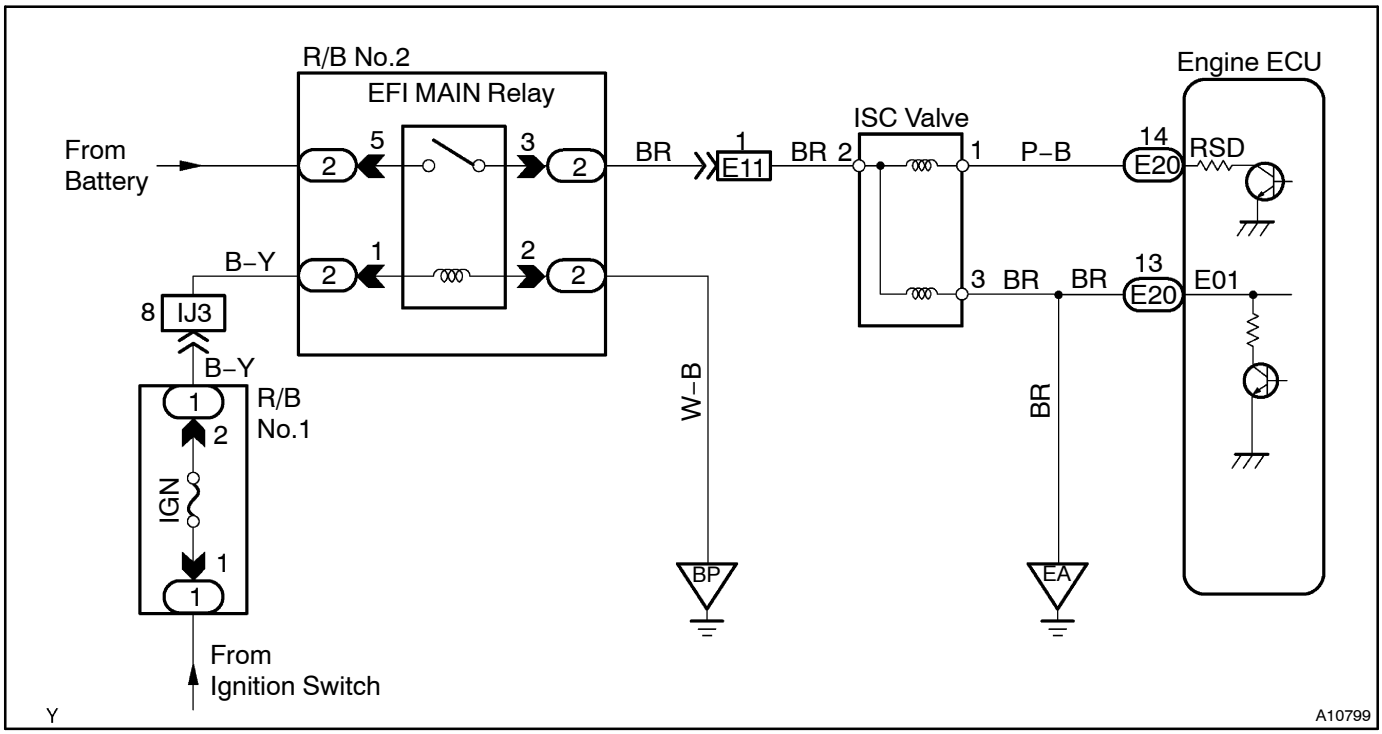
CIRCUIT DESCRIPTION



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.

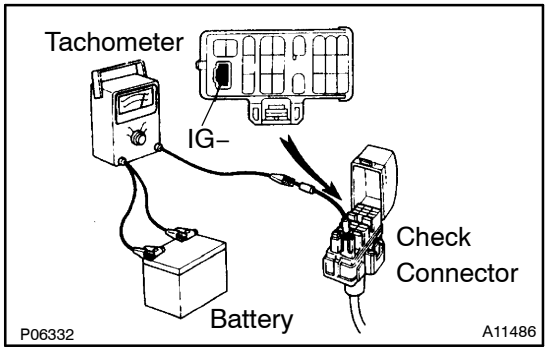
DTC No.	DTC Detecting Condition	Trouble Area
33	Open or short in ISC valve circuit	• Open or short in ISC valve circuit • ISC valve • Air intake (Hose loose) • Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

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 neutral position.
(e) Connect a tachometer tester probe to terminal IG– of the check connector.
(f) Using SST, connect terminals TE1 and E1 of the check connector.
SST 09843–18020

NOTICE:

As some tachometers are not compatible with this ignition system, we recommend that you confirm the compatibility of your unit before use.

CHECK:

Check the difference of the engine speed between the ones rotated for less than 5 sec. and more than 5 sec. after connecting terminals TE1 and E1 of the check connector.

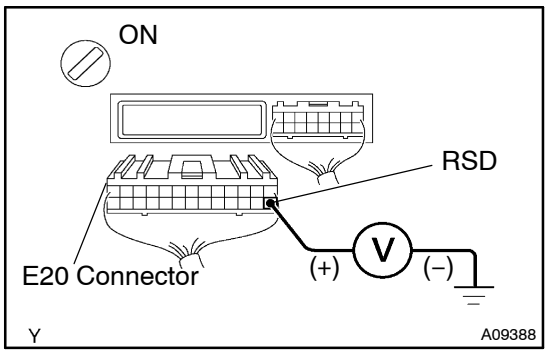
OK:

Difference of engine speed: More than 100 rpm

OK	**Proceed to next circuit inspection shown on problem symptom table (See page DI–15).**

NG

2	**Check voltage between terminal RSD of engine ECU connector and body ground.**



PREPARATION:

(a) Disconnect the engine ECU from the body bracket (See page FI–36).
(b) Disconnect the E20 connector from the ECU.
(c) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal RSD of the engine ECU connector and body ground.

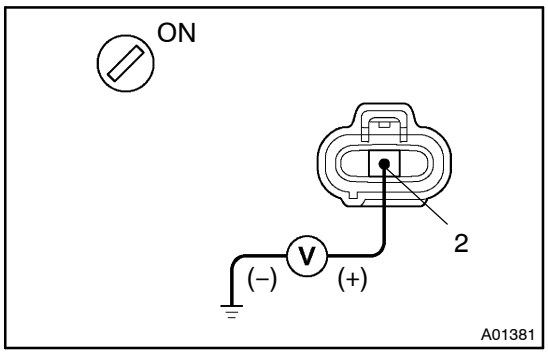
OK:

Voltage: 9 – 14 V

OK	**Go to step 5.**

NG

3	**Check voltage between terminal 2 of ISC valve connector and body ground.**



PREPARATION:

(a) Disconnect the ISC valve connector.

(b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal 2 of the ISC valve connector and body ground.

OK:

Voltage: 9 – 14 V

NG	**Check for open and short in harness and connector between ISC valve and R/B NO.2.**

OK

4	**Check for open and short in harness and connector in RSD circuit.**

NG	**Repair or replace.**

OK

Replace ISC valve.

5	**Check for open and short in harness and connector between terminal 3 of ISC valve connector and body ground.**

NG	**Repair or replace.**

OK

6	**Check operation of ISC valve (See page FI–25).**

NG → Replace ISC valve.

OK

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

NG → Repair or replace ISC valve and throttle body.

OK

Proceed to next circuit inspection shown on problem symptom table (See page DI–15).