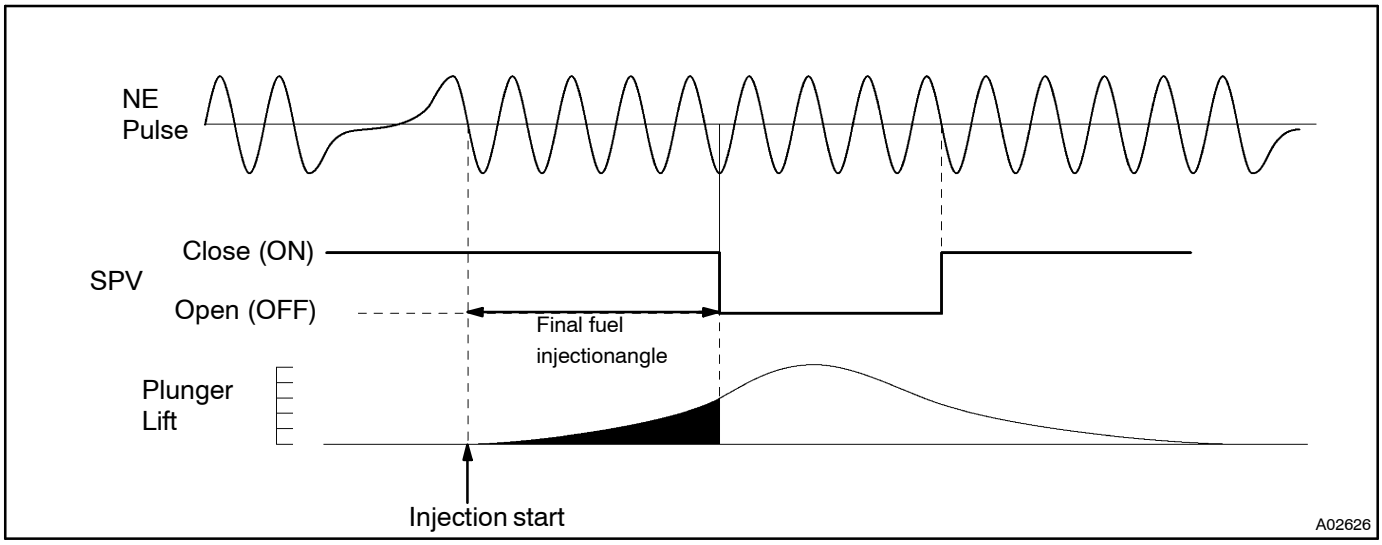
DI2ZQ–02

DTC	18	Spill Control Circuit Malfunction

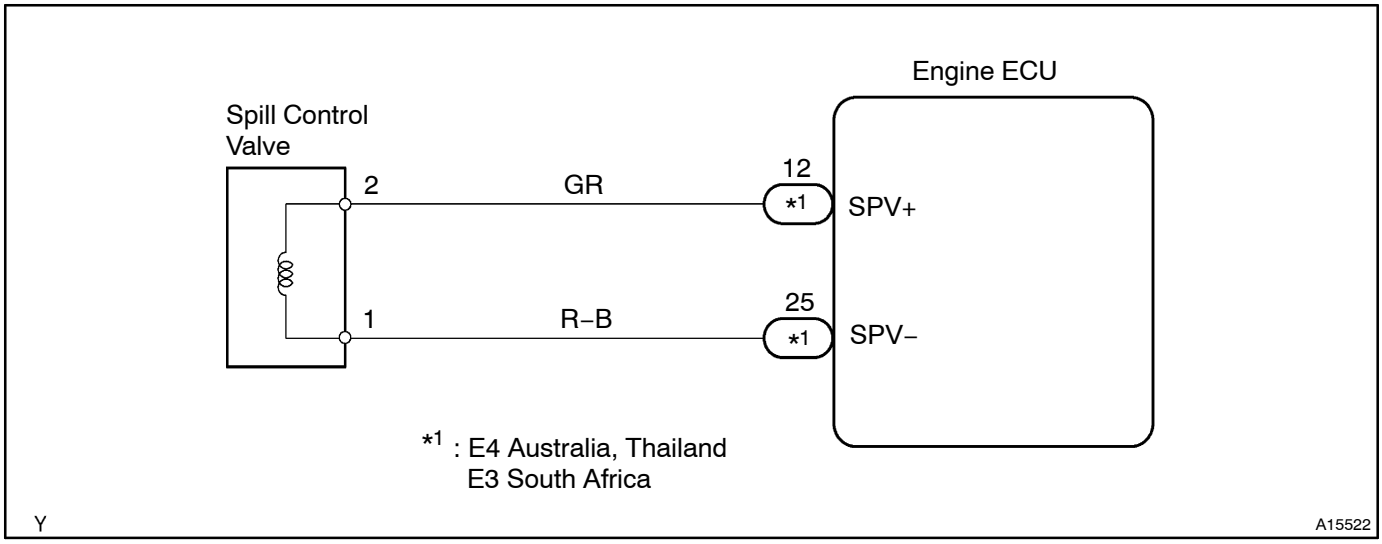
CIRCUIT DESCRIPTION

The engine ECU controls the fuel injection volume by operating the spill control valve. The spill control valve is mounted on the injection pump, and open or close the injection pressure releasing port by the solenoid valve in the spill control valve (During injection; valve is close (ON)), The engine ECU decides the basic fuel injection volume by the engine rpm and accelerator pedal opening angle, and calculates the final fuel injection angle to add the various corrections on the basic fuel injection volume. The engine ECU counts the NE pulse to detects the angle from injection starts and operates the spill control valve from ON to OFF (The injection pressure releasing port is open.) at the position which watches the final fuel injection angle.



DTC No.	DTC Detecting Condition	Trouble Area
18	Open or short in spill control valve at 500 rpm or more	• Open or short in spill control valve circuit • Spill control valve • Engine ECU

WIRING DIAGRAM



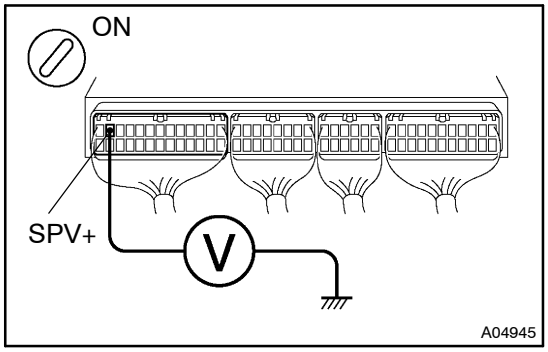
INSPECTION PROCEDURE

1	**Check spill control valve (See page FU–14).**

NG → **Replace injection pump.**

OK

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



PREPARATION:

(a) Remove the glove compartment door (See page ED–25).

(b) Turn the ignition switch ON.

CHECK:

Measure voltage between terminal SPV+ of engine ECU connector and body ground.

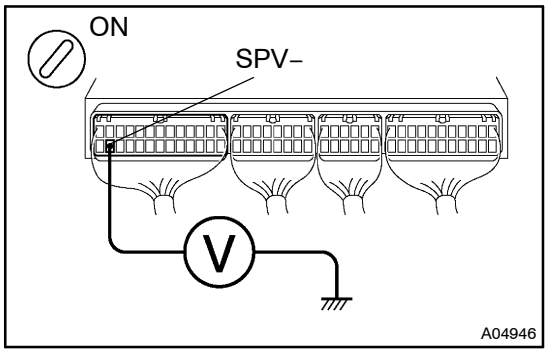
OK:

Voltage: 9 – 14 V

NG → **Check and replace engine ECU (See page IN–19).**

OK

3	Check voltage between terminal SPV– of engine ECU and body ground.



PREPARATION:

(a) Remove the glove compartment door (See page ED–25).

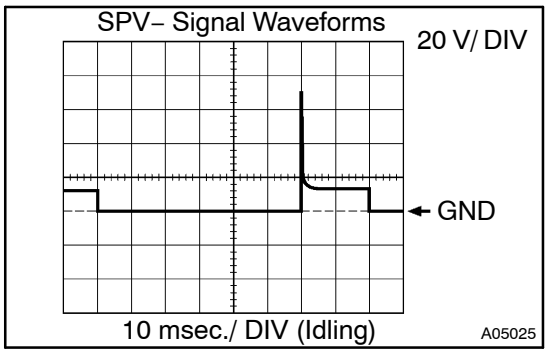
(b) Turn the ignition switch ON.

CHECK:

Measure voltage between terminals SPV– of engine ECU and body ground.

OK:

Voltage: 9 – 14 V



Reference: INSPECTION USING OSCILLOSCOPE

During idling, check waveform between terminals SPV– and E1 of engine ECU.

HINT:

The correct waveform is as shown.

NG → **Check and replace engine ECU (See page IN–19).**

OK

Check for open or short in harness and connector between spill control valve and engine ECU (See page IN–19).