

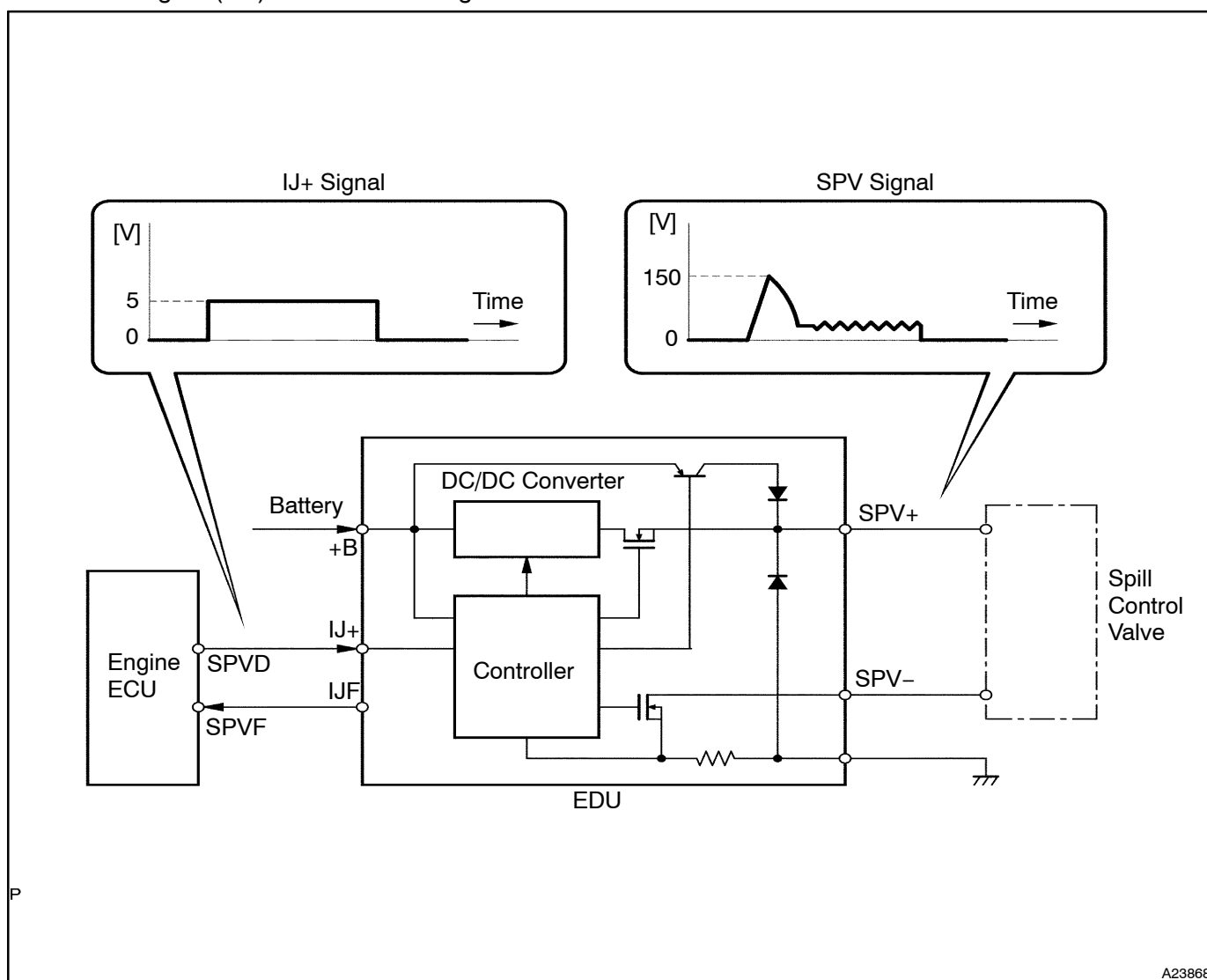
DTC	P1215/97	EDU Circuit
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CIRCUIT DESCRIPTION

The EDU drives the spill control valve at high speeds. The EDU's high-speed driving under high fuel pressure conditions is achieved through the use of a DC/DC converter that provides a high-voltage, quick-charging system.

The engine ECU constantly monitors the EDU and stops the engine in case an abnormal condition is detected.

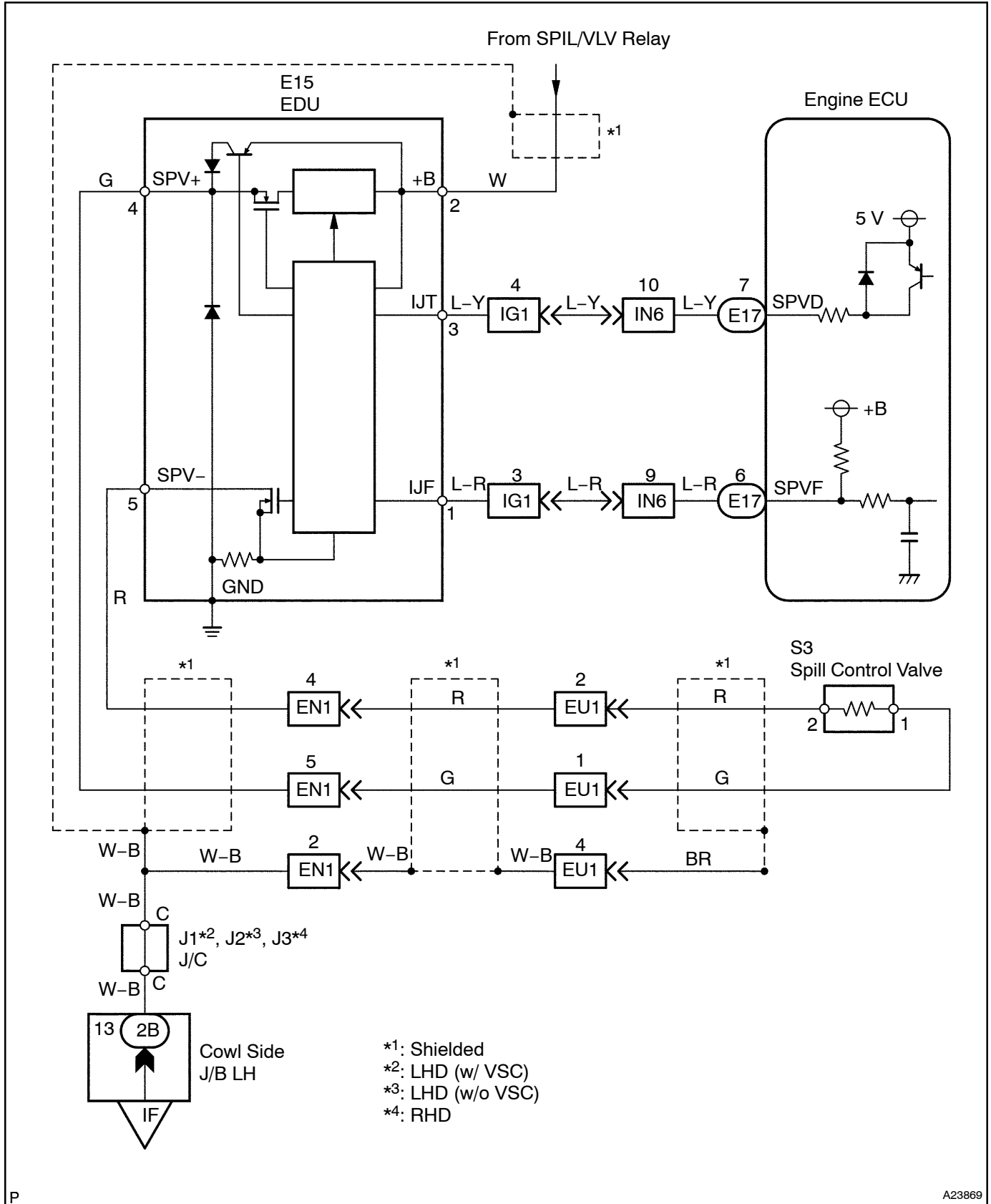
The battery voltage is increased by the DC/DC converter. A voltage of approximately 150 V is applied to the spill control valve in accordance with the IJ+ signal received from the engine ECU. At this time, the injection verification signal (IJF) is sent to the engine ECU.



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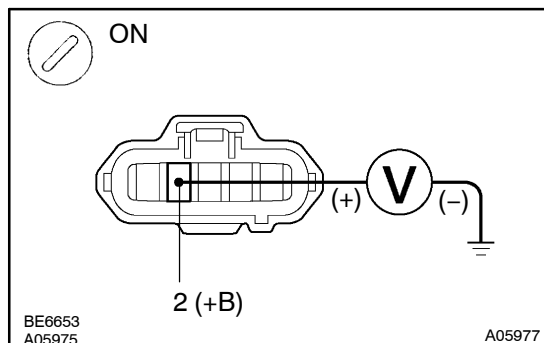
DTC No.	DTC Detection condition	Trouble Area
P1215/97	Although SPVD is output to EDU with engine speed at 500 rpm or more, SPVF is not input continuously 5 times or more	• Open or short in EDU circuit • EDU • Spill control valve

WIRING DIAGRAM



INSPECTION PROCEDURE

- 1 Check voltage between terminal 2 of wire harness side connector and body ground.**

**PREPARATION:**

- (a) Disconnect the EDU connector.
(b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal 2 of wire harness side connector and body ground.

OK:

Voltage: 10 to 14 V

NG

Check Spill valve relay circuit
(See page DI-157).

OK

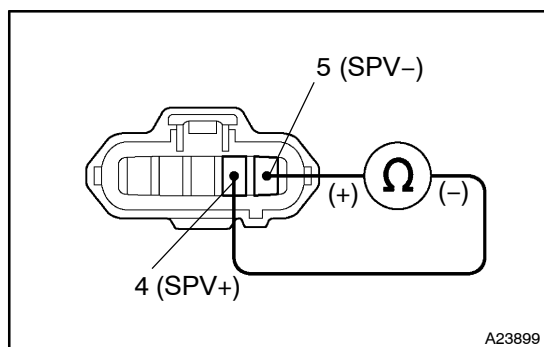
- 2 Check resistance EDU ground bolt and body ground.**

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Tighten EDU ground bolt.

OK

- 3 Check resistance between terminals 4 and 5 of wire harness side connector.**

**CHECK:**

Measure resistance between terminals 4 and 5 of wire harness side connector.

OK:

Resistance: Approx. 1.7 Ω

OK

Go to step 5.

NG

4 Check spill control valve (See Pub No. RM617E, page FU-113).

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**Check and replace injection pump
(See Pub No. RM617E, page FU-113).**

OK

**Check for open and short in harness and connector between spill control valve and EDU
(See page IN-19).**

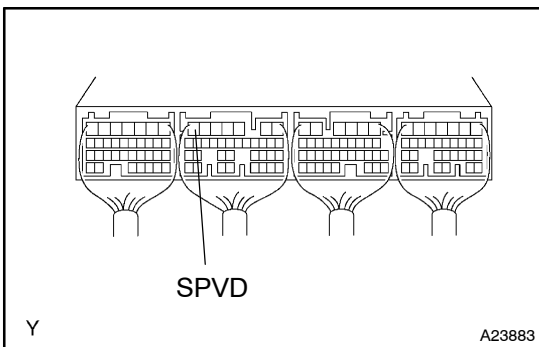
5 Check for open and short in harness and connector between engine ECU and EDU (See page IN-19).

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Repair or replace harness or connector.

OK

6 Check voltage between terminal SPVD of engine ECU connector and body ground.



PREPARATION:

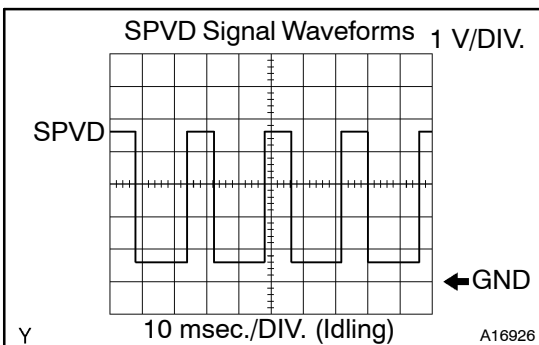
- (a) Remove the glove compartment door.
- (b) Turn the ignition switch ON.

CHECK:

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

OK:

Voltage: Approx. 0 V



Reference: INSPECTION USING OSCILLOSCOPE

During idling, check the waveform between terminals SPVD and E1 of the engine ECU.

HINT:

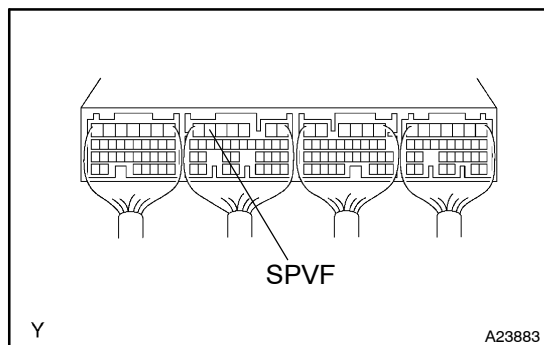
The correct waveform is as shown.

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**Check and replace engine ECU
(See page IN-19).**

OK

7 Check voltage between terminal SPVF of engine ECU and body ground.



PREPARATION:

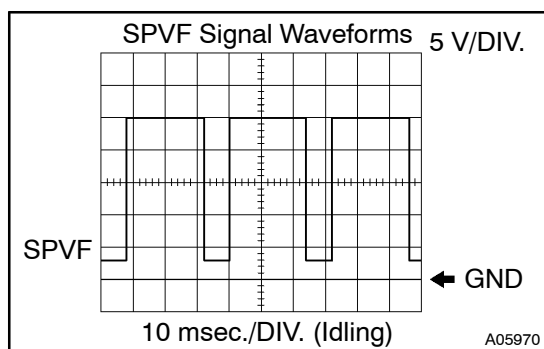
- (a) Remove the glove compartment door.
- (b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals SPVF of the engine ECU and body ground.

OK:

Voltage: 9 to 14 V



Reference: INSPECTION USING OSCILLOSCOPE

During idling, check the waveform between terminals SPVF and E1 of the engine ECU.

HINT:

The correct waveform is as shown.

NG

Check and replace engine ECU
(See page IN-19).

OK

Check and replace EDU (See Pub No. RM617E, page ED-15).