

DTC	P1121/19	Accel. Position Sensor Circuit (IDL SW/Range)
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CIRCUIT DESCRIPTION

Refer to DTC P1120/19 on [page DI-67](#).

DTC No.	DTC Detection Condition	Trouble Area
P1121/19	Condition (a) or (b) continues 0.05 sec. or more: (a) IDL ON and VA > 1.4 V (b) IDL ON and VAS > 1.4 V	• Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • Engine ECU
	Condition (a) or (b) continues 0.5 sec. or more: (a) IDL OFF and VA < 0.6 V (b) IDL OFF and VAS < 0.6 V	
	Conditions (a) and (b) continue 0.05 sec. or more: (a) 0.6 V < VA < 4.4 V and 0.6 V < VAS < 4.4 V (b) VA – VAS > 0.5 V	

WIRING DIAGRAM

Refer to DTC P1120/19 on [page DI-67](#).

INSPECTION PROCEDURE

When using intelligent tester II:

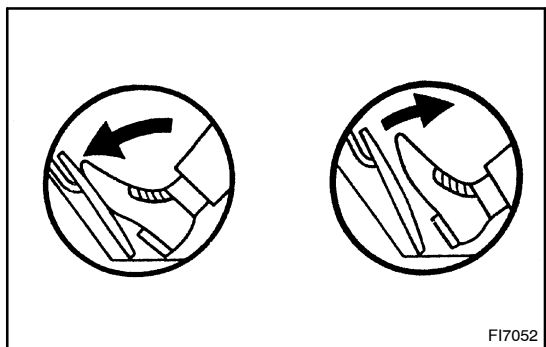
1	Connect intelligent tester II and read IDL signal.
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PREPARATION:

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch ON and push the intelligent tester II main switch ON.

CHECK:

Read the IDL signal.



OK:

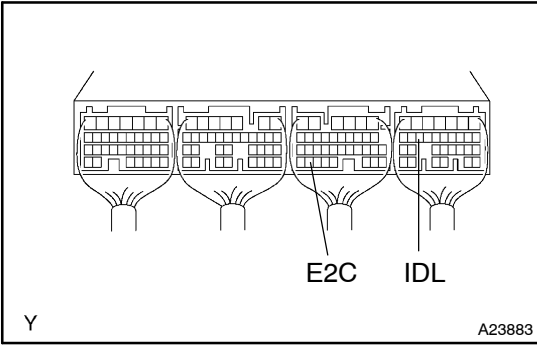
Accelerator pedal	IDL signal
Fully open	OFF
Fully closed	ON

OK

Go to step 4.

NG

2 Check voltage between terminals IDL and E2C of engine ECU.



PREPARATION:

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

CHECK:

Measure the voltage between terminals IDL and E2C of the engine ECU.

OK:

Accelerator pedal	Voltage
Fully closed	9 to 14 V
Fully open	0 to 3 V

OK

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

NG

3 Check for open and short in harness and connector between engine ECU and accelerator pedal position sensor (IDL line) (See page IN-19).

NG

Repair or replace harness or connector.

OK

Replace accelerator pedal position sensor.

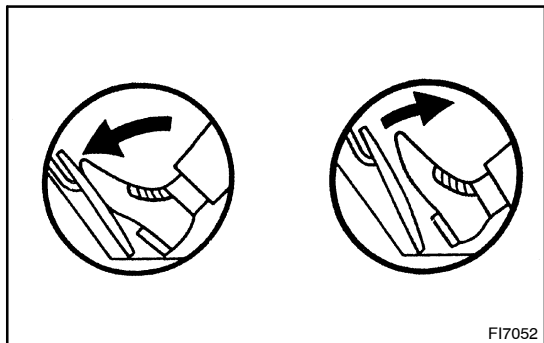
- 4** Connect intelligent tester II, and read accelerator pedal operating percentage.

PREPARATION:

- (a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch ON and push the intelligent tester II main switch ON.

CHECK:

Read the accelerator pedal opening percentage.

**OK:**

Accelerator pedal	Accelerator pedal opening position expressed as percentage
Fully open	Approx. 65%
Fully closed	Approx. 18%

OK

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

NG

- 5** Check voltage between terminal VCC of wire harness side connector and body ground (See page DI-67, Step 2).

NG

Go to step 8.

OK

- 6** Check voltage between terminals VA, VAS and E2C of engine ECU (See page DI-67, Step 3).

OK

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

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- 7** Check for open and short in harness and connector between engine ECU and accelerator pedal position sensor (VA, VAS line) (See page IN-19).

NG

Repair or replace harness or connector.

OK

Replace accelerator pedal position sensor.

- 8 Check voltage between terminals VCC and E2C of engine ECU
(See page DI-67, Step 5).

NG

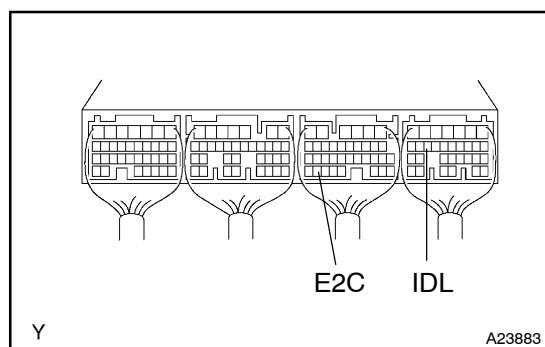
Check and replace engine ECU
(See page IN-19).

OK

Check for open in harness and connector between engine ECU and accelerator pedal position sensor (VCC line) (See page IN-19).

When not using intelligent tester II:

- 1 Check voltage between terminals IDL and E2C of engine ECU.

**PREPARATION:**

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

CHECK:

Measure the voltage between terminals IDL and E2C of the engine ECU.

OK:

Accelerator pedal	Voltage
Fully closed	9 to 14 V
Fully open	0 to 3 V

OK

Go to step 3.

NG

- 2 Check for open and short in harness and connector between engine ECU and accelerator pedal position sensor (IDL line) (See page IN-19).

NG

Repair or replace harness or connector.

OK

Replace accelerator pedal position sensor.

3 Check voltage between terminal 4 of wire harness side connector and body-ground ([See page DI-67](#), Step 2).

NG

Go to step 6.

OK

4 Check voltage between terminals VA, VAS and E2C of engine ECU ([See page DI-67](#), Step 3).

OK

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

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5 Check for open and short in harness and connector between engine ECU and accelerator pedal position sensor (VA, VAS line) ([See page IN-19](#)).

NG

Repair or replace harness or connector.

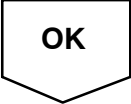
OK

Replace accelerator pedal position sensor.

6 Check voltage between terminals VCC and E2C of engine ECU ([See page DI-67](#), Step 5).

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

A rectangular button with a downward-pointing arrow at the bottom, containing the text "OK".

OK

Check for open in harness and connector between engine ECU and accelerator pedal position sensor (VCC line) ([See page IN-19](#)).