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

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.**

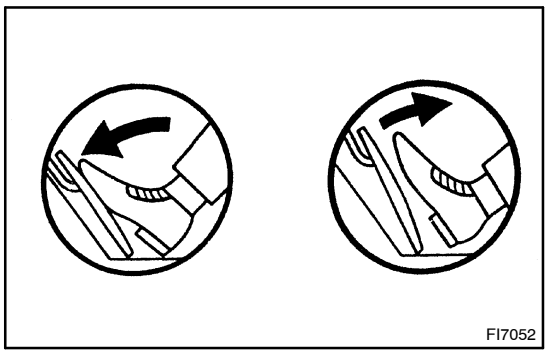
PREPARATION:

(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.



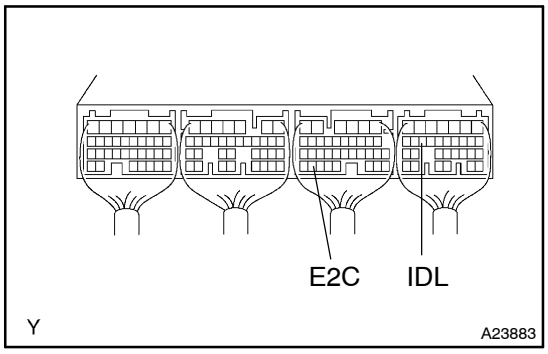
OK:

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.**

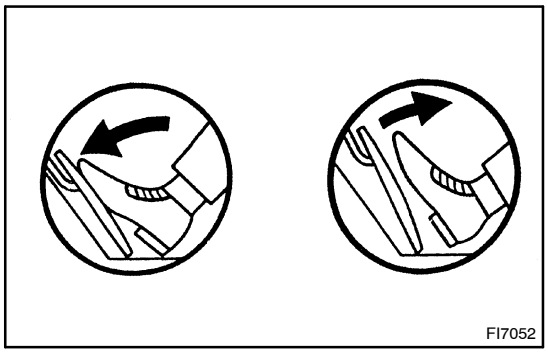
PREPARATION:

(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).**

NG

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).

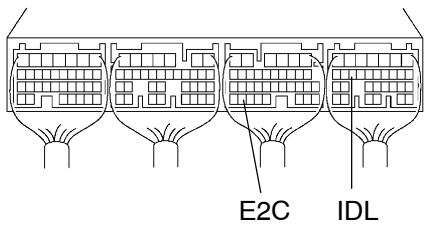
NG → Check and replace engine ECU (See page IN–19).

OK

Check for open in harness and connecter 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).

NG

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).

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).