DTC	P2121	THROTTLE/PEDAL POSITION SENSOR/SWITCH "D" CIRCUIT RANGE/PERFORMANCE

HINT:
This is repair procedure for the "accelerator pedal position sensor".

CIRCUIT DESCRIPTION

Refer to DTC P2120 on page 05–132.

DTC No.	DTC Detection Condition	Trouble Area
P2121	Conditions (a) and (b) continue for 0.5 seconds: (a) Difference between VPA1 and VPA2 exceeds the threshold (b) IDL is OFF	• Accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM

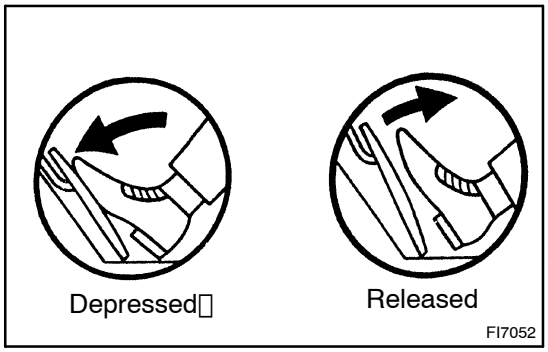
WIRING DIAGRAM

Refer to DTC P2120 on page 05–132.

INSPECTION PROCEDURE

HINT:
Read freeze frame data using the hand–held tester. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, if the air–fuel ratio was lean or rich, and other data from the time the malfunction occurred.

1 READ VALUE OF HAND–HELD TESTER (ACCEL POS #1, ACCEL POS #2)



(a) Connect the hand–held tester to the DLC3.
(b) Turn the ignition switch ON.
(c) On the hand–held tester, enter the following menus: DIAGNOSIS / OBD / MOBD / DATA LIST / ALL / ACCEL POS #1 and / ACCEL POS #2. Read the values.

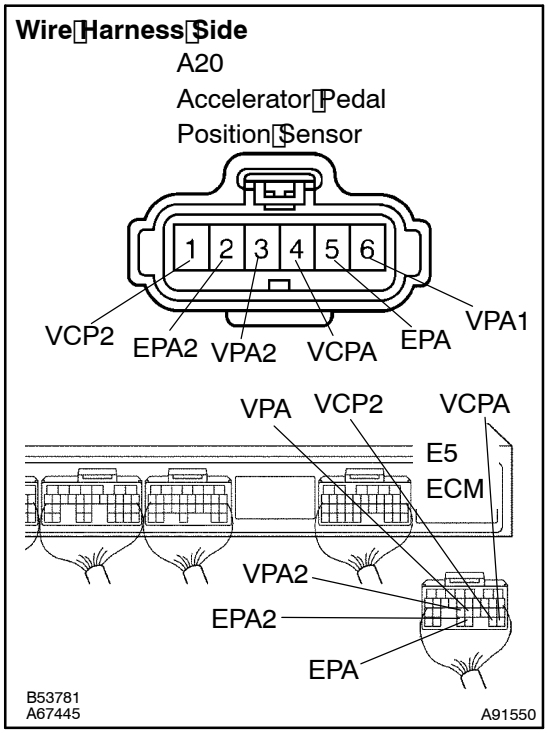
Standard:

Accelerator pedal	ACCEL POS #1	ACCEL POS #2
Released	0.5 to 1.1 V	1.2 to 2.0 V
Depressed	2.6 to 4.5 V	3.4 to 5.3 V

OK → **REPLACE ECM (See page 10–13)**

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2 CHECK WIRE HARNESS (ACCELERATOR PEDAL POSITION SENSOR – ECM)



(a) Disconnect the A20 sensor connector.
(b) Disconnect the E5 ECM connector.
(c) Check the resistance of the wire harness side connectors.

Tester Connection	Specified Condition
A20–6 (VCP1) – E5–26 (VCPA) A20–5 (VPA1) – E5–22 (VPA) A20–4 (VCP2) – E5–27 (VCP2) A20–3 (EP1) – E5–28 (EPA) A20–2 (VPA2) – E5–23 (VPA2) A20–1 (EP2) – E5–29 (EPA2)	Below 1 Ω
A20–6 (VCP1) or E5–26 (VCPA) – Body ground A20–5 (VPA1) or E5–22 (VPA) – Body ground A20–4 (VCP2) or E5–27 (VCP2) – Body ground A20–3 (EP1) or E5–28 (EPA) – Body ground A20–2 (VPA2) or E5–23 (VPA2) – Body ground A20–1 (EP2) or E5–29 (EPA2) – Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE ACCELERATOR PEDAL ASSY (See page 10–15)