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

CIRCUIT DESCRIPTION

HINT:
This is repair procedure of the ”accelerator pedal position sensor”.
Refer to DTC P2120 on page 05–361.

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

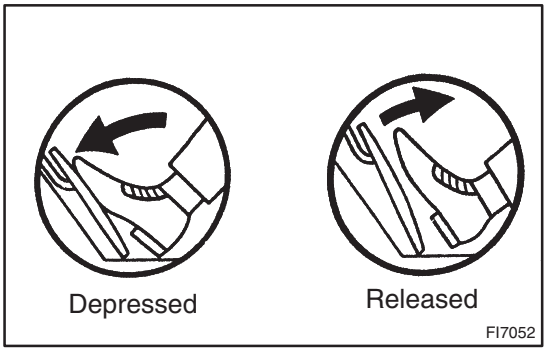
WIRING DIAGRAM

Refer to DTC P2120 on page 05–361.

INSPECTION PROCEDURE

HINT:
Read freeze frame data using the Intelligent Tester II. 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 INTELLIGENT TESTER II(ACCEL POS #1 AND ACCEL POS #2)



(a) Connect the Intelligent Tester II to the DLC3.
(b) Turn the engine switch to ON and turn the intelligent tester II ON.
(c) Select the following menu items: Powertrain / Engine and ECT / Data List / Accelerator POS No.1.
(d) Read the value.

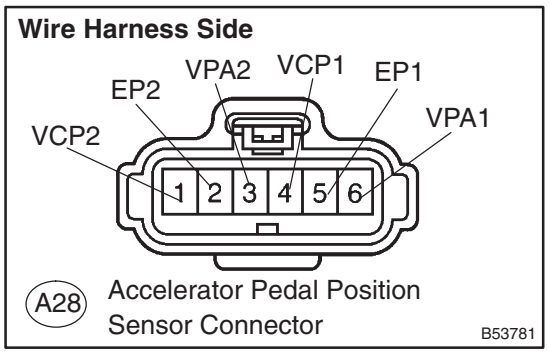
Standard:

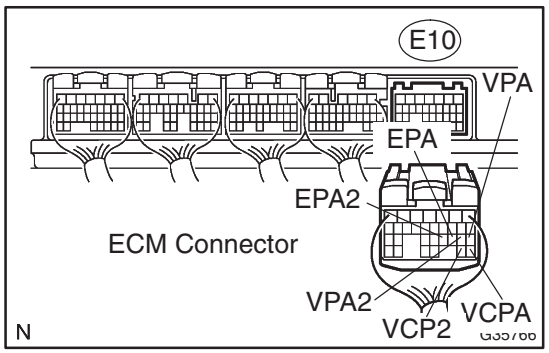
Accelerator pedal	Accelerator POS No.1	Accelerator POS No.1
Released	0.5 to 1.1 V	1.2 to 2.0 V
Depressed	2.6 to 4.5 V	3.4 to 5.0 V

OK → **REPLACE ECM (See Pub. No. RM1017E, page 10–11)**

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2	CHECK HARNESS AND CONNECTOR(ACCELERATOR PEDAL POSITION SENSOR – ECM)





(a) Disconnect the accelerator pedal position sensor connector.

(b) Disconnect the E10 ECM connector.

(c) Check for resistance between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
VPA1 (A28–6) – VPA (E10–18)	Below 1 Ω
EP1 (A28–5) – EPA (E10–20)	Below 1 Ω
VCP1 (A28–4) – VCPA (E10–26)	Below 1 Ω
VPA2 (A28–3) – VPA2 (E10–19)	Below 1 Ω
EP2 (A28–2) – EPA2 (E10–21)	Below 1 Ω
VCP2 (A28–1) – VCP2 (E10–27)	Below 1 Ω

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
VPA1 (A28–6) or VPA (E10–18) – Body ground	10 kΩ or higher
EP1 (A28–5) or EPA (E10–20) – Body ground	10 kΩ or higher
VCP1 (A28–4) or VCPA (E10–26) – Body ground	10 kΩ or higher
VPA2 (A28–3) or VPA2 (E10–19) – Body ground	10 kΩ or higher
EP2 (A28–2) or EPA2 (E10–21) – Body ground	10 kΩ or higher
VCP2 (A28–1) or VCP2 (E10–27) – Body ground	10 kΩ or higher

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

OK

REPLACE ACCELERATOR PEDAL ROD ASSY (See Pub. No. RM1017E, page 10–12)