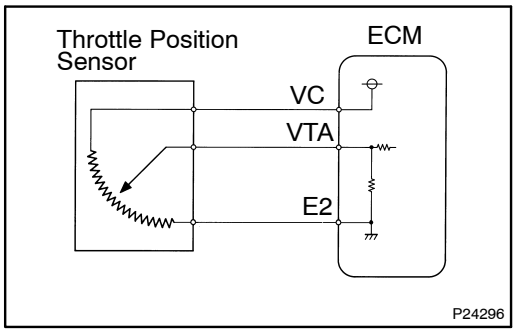
DTC	P0120	Throttle/Pedal position Sensor/Switch "A" Circuit Malfunction

CIRCUIT DESCRIPTION



The throttle position sensor is mounted in the throttle body and detects the throttle valve opening angle. When the throttle valve is fully closed, a voltage of approximately 0.3 ~ 1.0 V is applied to terminal VTA of the ECM. The voltage applied to terminals VTA of the ECM increases in proportion to opening angle of the throttle valve and becomes approximately 2.7 ~ 5.2 V when the throttle valve is fully opened. The ECM judges the vehicle driving conditions from these signals input from terminals VTA and uses them as one of the conditions for deciding the air–fuel ratio correction, power increase correction and fuel–cut control etc.

DTC No.	DTC Detecting Condition	Trouble Area
P0120	Condition (a) or (b) continues (a) VTA < 0.1 V (b) VTA > 4.9 V	• Open or short in throttle position sensor circuit • Throttle position sensor • ECM

HINT:
After confirming DTC P0120, use the OBD II scan tool or TOYOTA hand–held tester to confirm the throttle valve opening percentage and closed throttle position switch condition.

Throttle valve opening position expressed as percentage		Trouble Area
Throttle valve fully closed	Throttle valve fully open	
0 %	0 %	VCC line open VTA line open or short
Approx. 100 %	Approx. 100 %	E2 line open

WIRING DIAGRAM