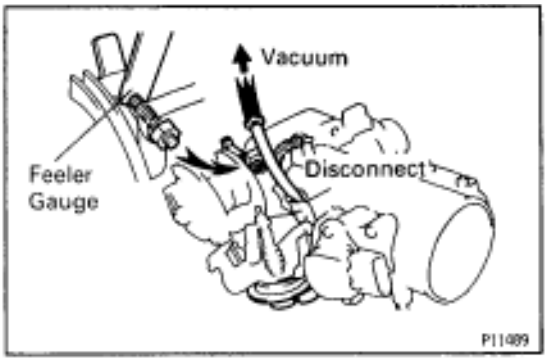


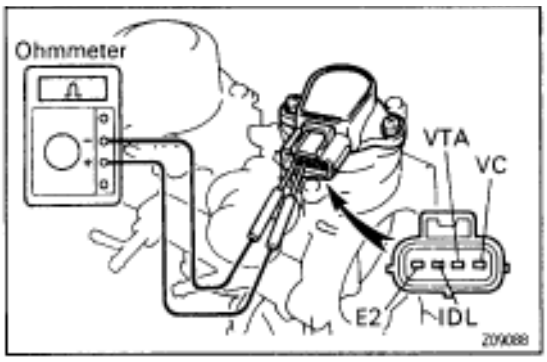
Throttle Position Sensor

1. INSPECT THROTTLE POSITION SENSOR

(a) Disconnect the throttle opener vacuum hose from the throttle body.

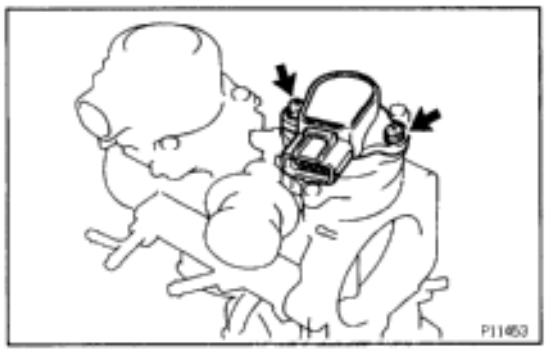
(b) Apply vacuum to the throttle opener.

(c) Insert a 0.54 mm (0.021 in.) or 0.70 mm (0.028 in.) feeler gauge between the throttle stop screw and stop lever.



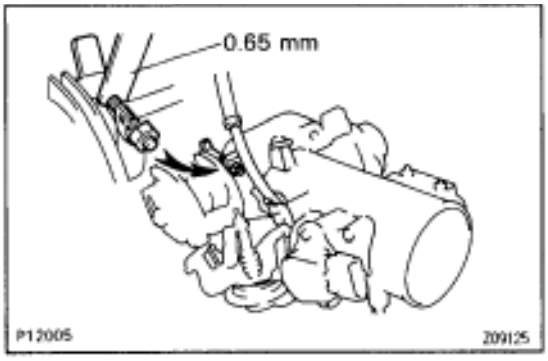
(d) Using an ohmmeter, measure the resistance between each terminal.

Clearance between lever and stop screw	Between terminals	Resistance
0 mm (0 in.)	VTA–E2	0.34–6.3 Ω
0.54 mm (0.021 in.)	IDL–E2	0.5 kΩ or less
0.70 mm (0.028 in.)	IDL–E2	Infinity
Throttle valve fully Open	VTA–E2	2.4–11.2 kΩ
–	VC–E2	3.1–7.2 kΩ

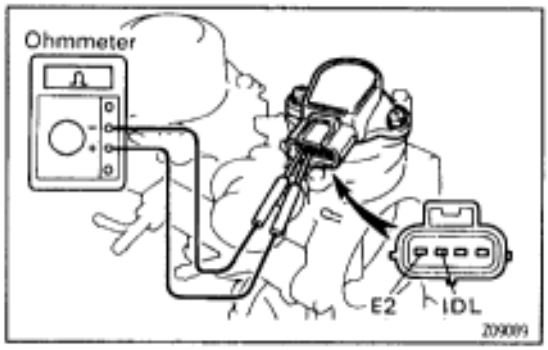


2. IF NECESSARY, ADJUST THROTTLE POSITION SENSOR

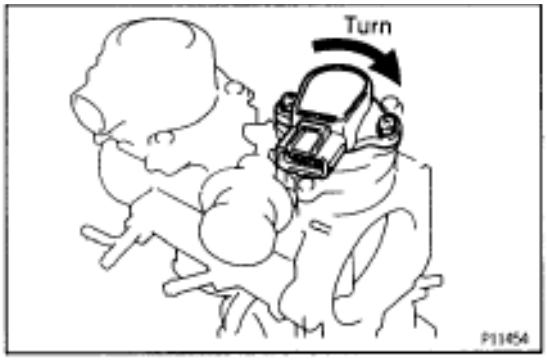
(a) Loosen the 2 set screws of the sensor.



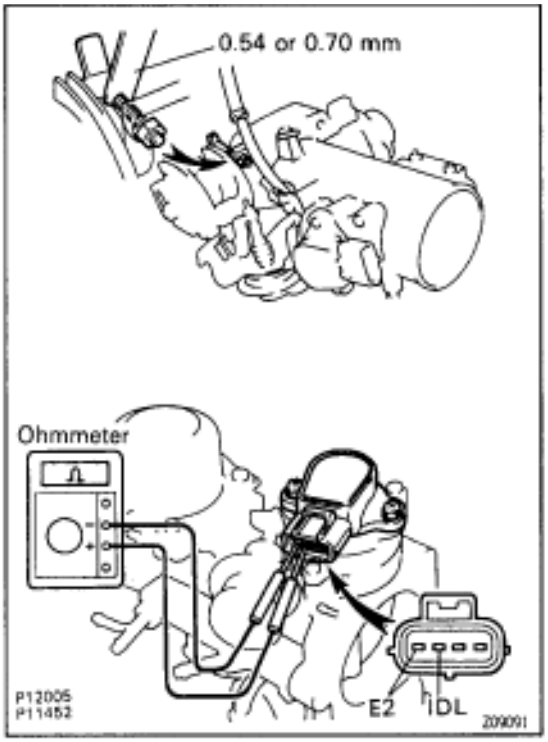
(b) Insert a 0.65 mm (0.026 in.) feeler gauge between the throttle stop screw and stop lever.



(c) Connect the tester probe of an ohmmeter to the terminals IDL and E2 of the sensor.



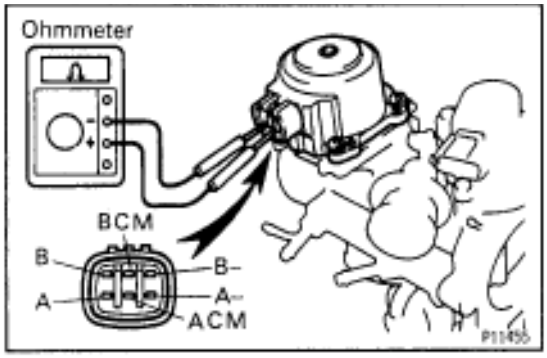
(d) Gradually turn the sensor clockwise until the ohmmeter deflects, and secure it with the 2 set screws.



(e) Recheck the continuity between terminals IDL and E2.

Clearance between lever and stop screw	Continuity (IDL–E2)
0.54 mm (0.021 in.)	Continuity
0.70 mm (0.028 in.)	No continuity

(f) Reconnect the vacuum hose to the throttle body.



Sub–Throttle Actuator, Sub–Throttle Valve and Throttle Position Sensor

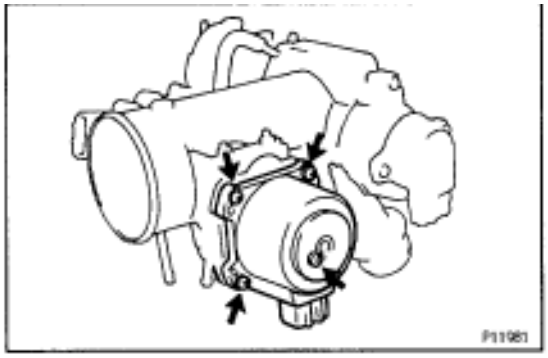
1. INSPECT SUB–THROTTLE ACTUATOR

Using an ohmmeter, measure the resistance between the terminals (ACM to A and A–, BCM to B and B–).

Resistance:

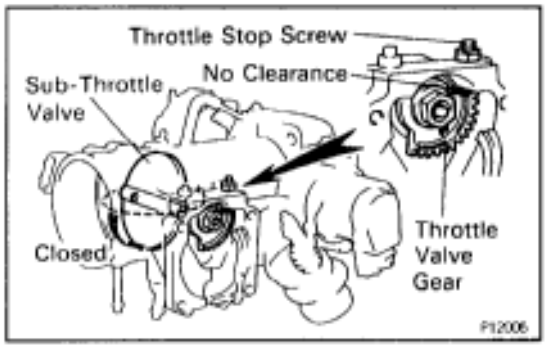
0.82–0.98 Ω at 20°C (68°F)

If the resistance is not as specified, replace the actuator.



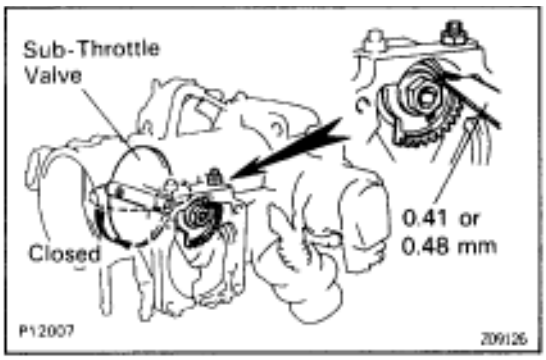
2. REMOVE SUB–THROTTLE ACTUATOR

Remove the 4 screws and sub–throttle actuator.



3. INSPECT SUB–THROTTLE VALVE

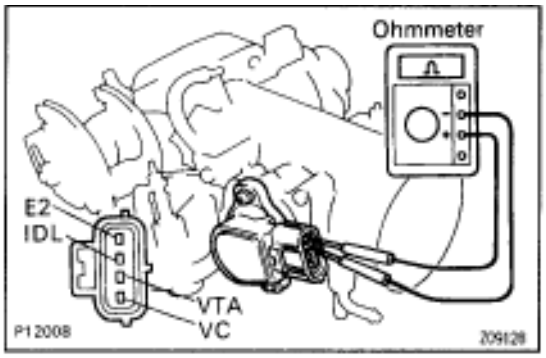
Check that there is no clearance between the throttle stop screw and throttle valve gear when the subthrottle valve is fully closed.



4. INSPECT SUB–THROTTLE POSITION SENSOR

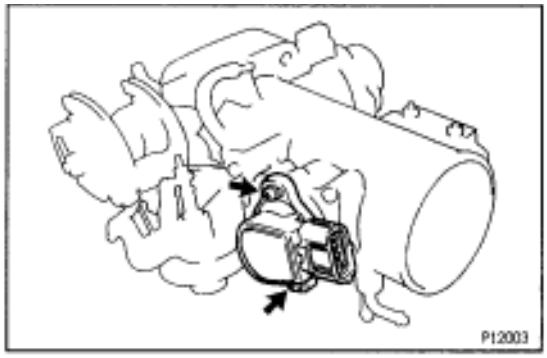
(a) Set the sub–throttle valve to fully closed position.

(b) Insert a 0.41 mm (0.016 in.) or 0.48 mm (0.019 in.) feeler gauge between the throttle stop screw and throttle valve gear.



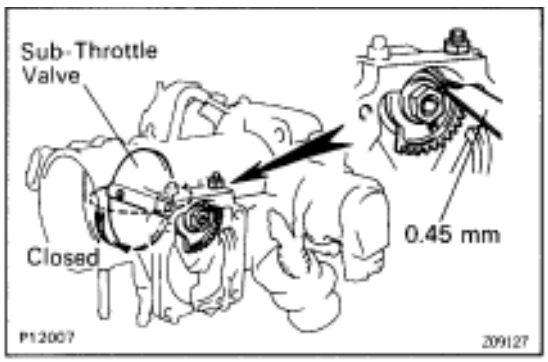
(c) Using an ohmmeter, measure the resistance between terminals.

Clearance between lever and stop screw	Between terminals	Resistance
0 mm (0 in.)	VTA–E2	0.3–6.3 kΩ
0.41 mm (0.016 in.)	IDL–E2	0.5 kΩ or less
0.48 mm (0.019 in.)	IDL–E2	Infinity
Throttle valve fully open	VTA–E2	2.0–10.8 kΩ
–	VC–E2	3.5–6.5 kΩ



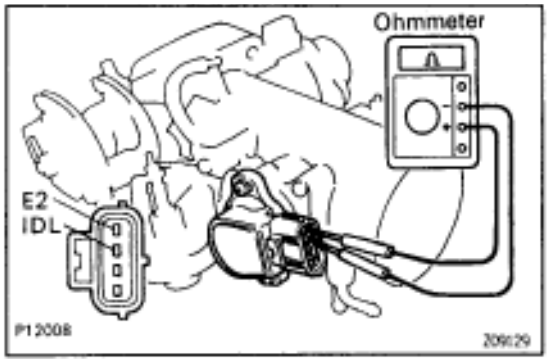
5. IF NECESSARY, ADJUST SUB–THROTTLE POSITION SENSOR

(a) Loosen the 2 set screws of the sensor.

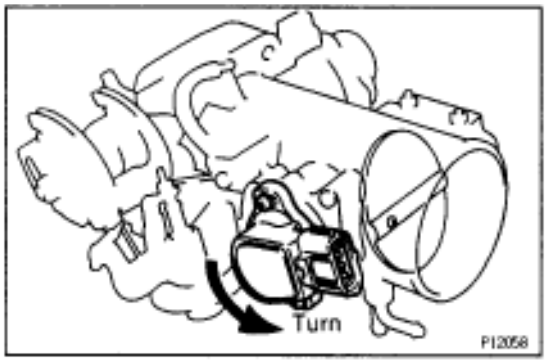


(b) Set the sub–throttle valve to fully closed position.

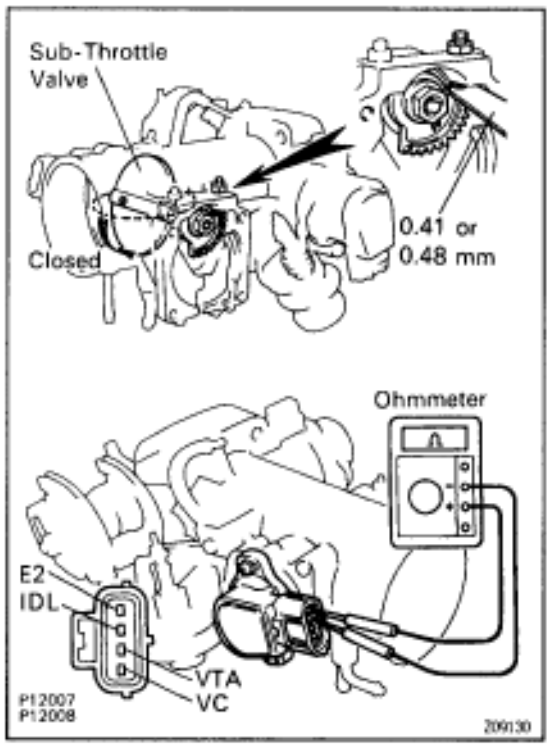
(c) Insert a 0.45 mm (0.018 in.) feeler gauge, between the throttle stop screw and throttle valve gear.



(d) Connect the tester probe of an ohmmeter to the terminals IDL and E2 of the sensor.

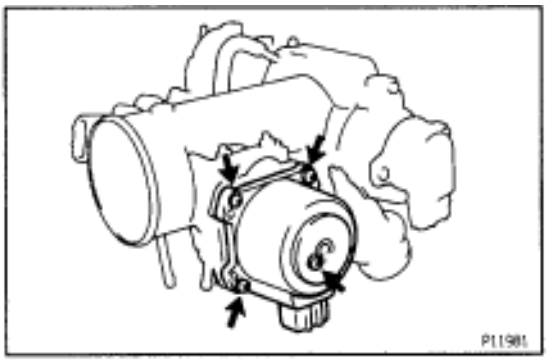


(e) Gradually turn the sensor clockwise until the ohmmeter deflects, and secure it with the 2 set screws.



(f) Recheck the continuity between terminals IDL and E2.

Clearance between lever and stop screw	Continuity (IDL–E2)
0.41 mm (0.016 in.)	Continuity
0.48 mm (0.019 in.)	No continuity



6. REINSTALL SUB–THROTTLE ACTUATOR

Install the sub–throttle actuator with the 4 screws.