

"C29" STP SENSOR CIRCUIT MALFUNCTION

DETECTED CONDITION	POSSIBLE CAUSE
Signal voltage low or high. Difference between actual throttle opening and opening calculated by ECM is larger than specified value. ($0.2\text{ V} \leq \text{Sensor Voltage} < 4.8\text{ V}$) (without the above range.)	<ul style="list-style-type: none"> • STP sensor maladjusted. • STP sensor circuit open or short. • STP sensor malfunction. • ECM malfunction.

INSPECTION

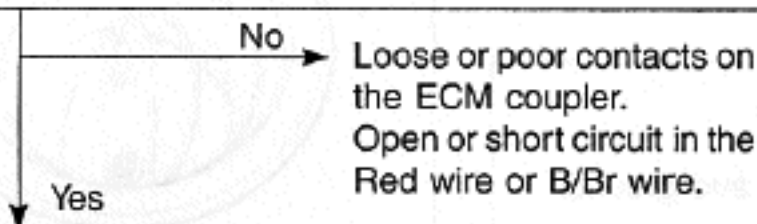
- Lift and support the fuel tank with its prop stay. (☞ 4-56)

1 Turn the ignition switch OFF.
 Check the STP sensor coupler for loose or poor contacts.
 If OK, then measure the STP sensor input voltage.
 Disconnect the STP sensor coupler (White color).
 Turn the ignition switch ON.
 Measure the voltage at the Red wire and ground.
 If OK, then measure the voltage at the Red wire and B/Br wire.

DATA STP sensor input voltage: 4.5 – 5.5 V
 (⊕Red – ⊖Ground)
 (⊕Red – ⊖B/Br)

TOOL 09900-25008: Multi circuit tester

Tester knob indication: Voltage (V)



2 Turn the ignition switch OFF.
 Remove the air cleaner element.
 Disconnect the STP sensor coupler (White color).
 Check the continuity between Yellow wire and ground.

DATA STP sensor continuity: $\infty\Omega$ (Infinity)
 (Yellow wire – Ground)

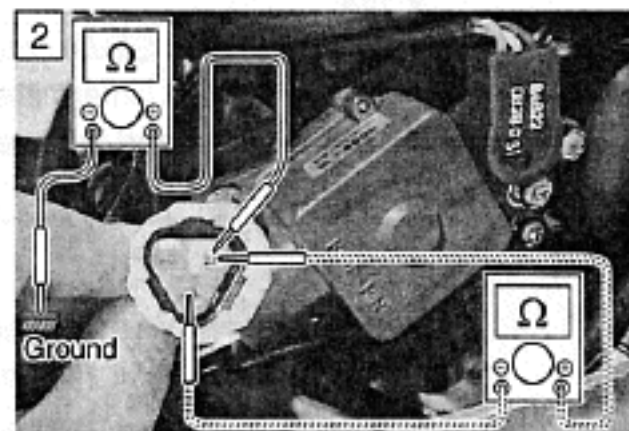
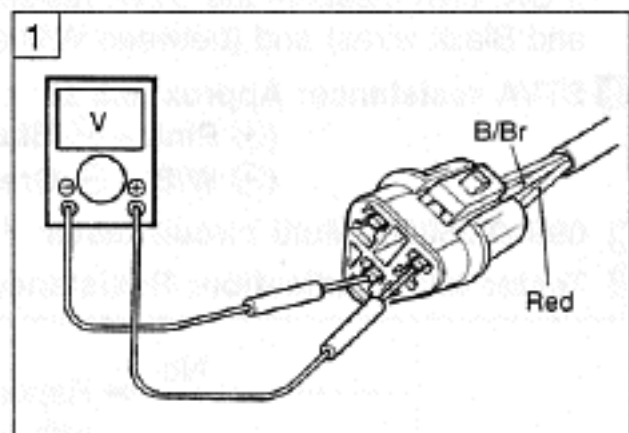
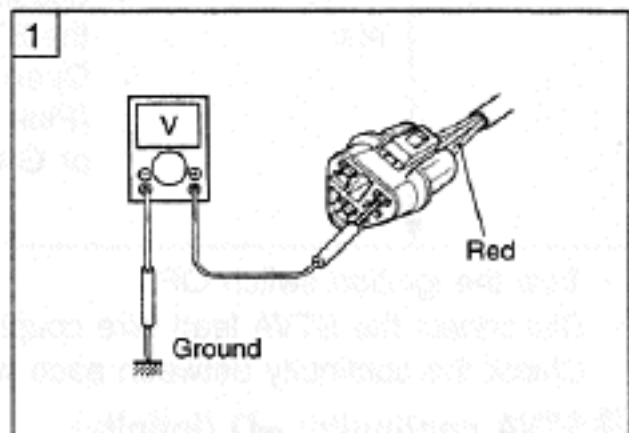
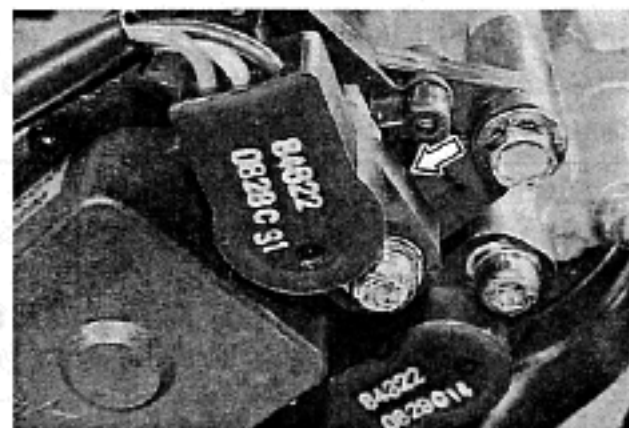
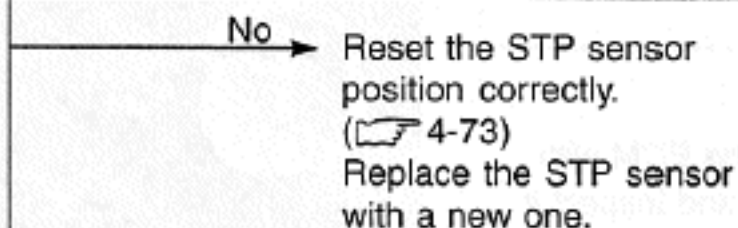
If OK, then measure the STP sensor resistance at the coupler (between Yellow and Black wires).
 Close and open the secondary throttle valve by finger, and measure the valve closing and opening resistance.

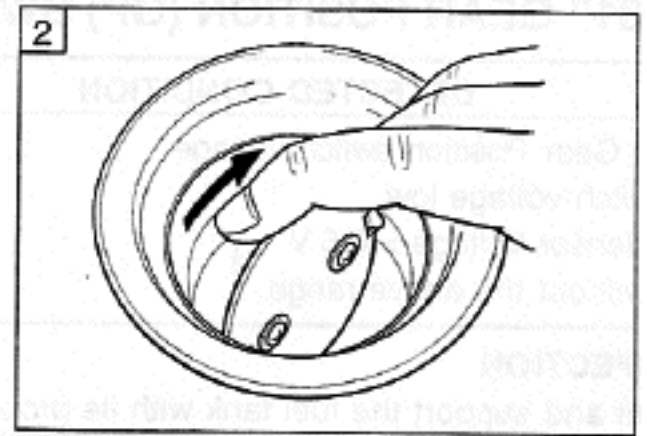
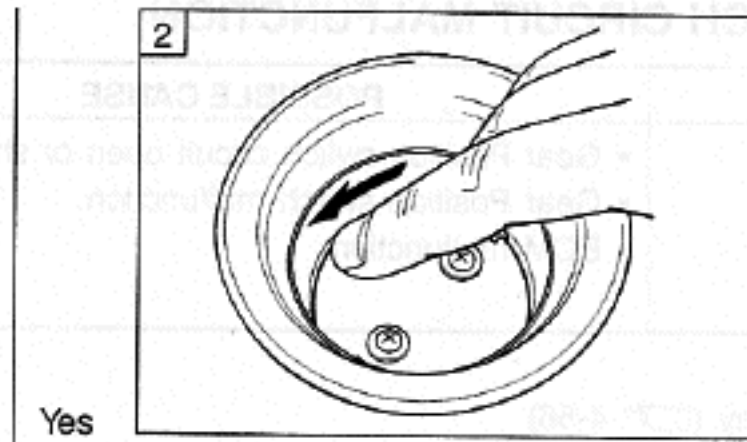
DATA STP sensor resistance

Secondary throttle valve is closed: Approx. 0.5 k Ω
 Secondary throttle valve is opened: Approx. 3.9 k Ω

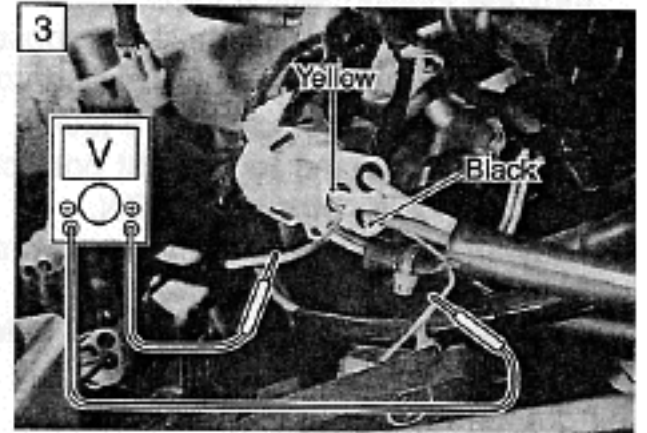
TOOL 09900-25008: Multi circuit tester

Tester knob indication: Resistance (Ω)





3 Turn the ignition switch OFF.
 Connect the STP sensor coupler.
 Insert the copper wires to the lead wire coupler.
 Disconnect the STVA lead wire coupler.
 Turn the ignition switch ON.
 Measure the STP sensor output voltage at the coupler (between Yellow and Black wires) by turning the secondary throttle valve (close and open) with a finger.



DATA STP sensor output voltage
 Throttle valve is closed: Approx. 0.5 V
 Throttle valve is opened: Approx. 3.7 V

TOOL 09900-25008: Multi circuit tester
 Tester knob indication: Voltage (V)

No → If check result is not satisfactory, replace STP sensor with a new one.

Yes
 Blue, Yellow or Black wire open or shorted to ground, or poor connection. (☞ 4-27)
 If wire and connection are OK, intermittent trouble or faulty ECM. Recheck each terminal and wire harness for open circuit and poor connection. (☞ 4-4)

→ Replace the ECM with a new one, and inspect it again.

