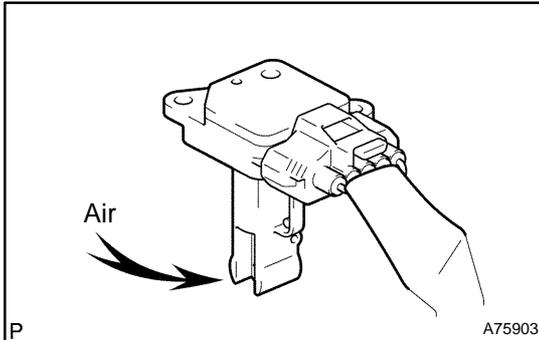


SFI SYSTEM (1GR-FE)

ON-VEHICLE INSPECTION

100CZ-01



1. INSPECTION MASS AIR FLOW METER

(a) If you have the hand-held tester:

Inspect operation

- (1) Connect the hand-held tester to the DLC3.
- (2) Turn the ignition switch ON.
- (3) Blow air into the MAF meter, and check that the air flow value of the CURRENT DATA changes.

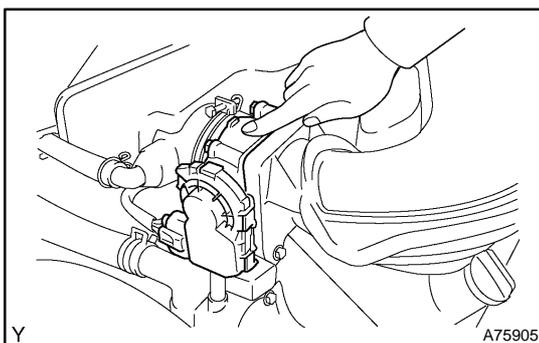
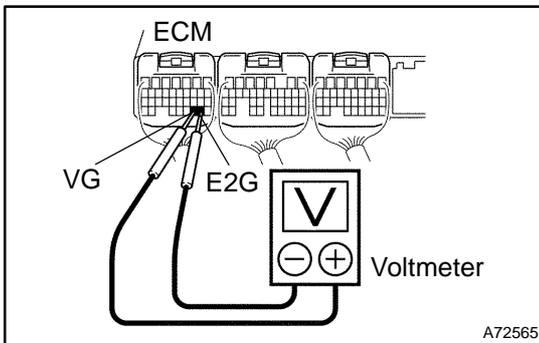
If operation is not as specified, check the MAF meter (See page 10-3) as well as the wiring and the ECM.

(b) If you do not have the hand-held tester:

Inspect operation

- (1) Turn the ignition switch ON.
- (2) Connect the positive tester probe of the voltmeter to the terminal VG of the ECM and the negative tester probe of the voltmeter to the terminal E2G of the ECM.
- (3) Blow air into the air flow meter, and check if the voltage fluctuates.

If operation is not as specified, check the MAF meter (See page 10-3), the wiring and the ECM.



2. INSPECTION THROTTLE BODY

(a) Check for operating sound.

- (1) Turn the ignition switch ON.
- (2) When turning the accelerator pedal position sensor lever, listen to a running sound of the motor. Also, check that there is no friction sound.

If operation is not as specified, check the throttle control motor (See page 10-3), wiring and ECM.

(b) Inspect the throttle position sensor.

- (1) Connect the hand-held tester to the DLC3.
- (2) Turn the ignition switch ON.
- (3) When turning the accelerator pedal position sensor lever to the full-open position, check that the percentage of throttle valve opening angle (THROTTLE POS) of the CURRENT DATA.

**Standard percentage of the valve opening angle:
60 % or more**

If operation is not as specified, check that the accelerator pedal position sensor (See page 05-184), the wiring and the ECM.

If you do not have the hand-held tester, measure voltage between the terminals (VTA1 - E2, VTA2 - E2) of the ECM connector (See page 05-26).

- (c) Inspect the air assist system.
 - (1) Start the engine and check that the MIL does not illuminate.
 - (2) Let the engine warm up to the normal operating temperature.
 - (3) Switch the A/C compressor from ON to OFF, and check the idle speed.

Idle speed (Transmission in neutral): 700 ± 50 rpm

NOTICE:

Perform inspection under condition without electrical load.

- (d) After checking the above (b) to (d), perform the driving test.

3. INSPECT ACCELERATOR PEDAL POSITION SENSOR

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Check if the voltage (ACCEL POS) of the CURRENT DATA indicates the standard value.
Accelerator pedal released: 0.5 - 1.1 V
Accelerator pedal depress: 2.6 - 4.5 V
- (d) Check if the voltage (ACCEL POS #2) of the CURRENT DATA indicates the standard value.
Accelerator pedal released: 1.2 - 2.0 V
Accelerator pedal depress: 3.4 - 5.3 V

If you do not have the hand-held tester, measure voltage between terminals (VPA - EPA, VPA2 - EPA2) of the ECM connector (See page 05-26).

4. INSPECT CAMSHAFT TIMING OIL CONTROL VALVE ASSY

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Start the engine and warmed it up.
- (d) Connect the hand-held tester and select the VVT from the ACTIVE TEST menu.
- (e) Check the engine speed when the OCV is operated by the hand-held tester.

Standard:

VVT system is OFF (OCV is OFF): Normal engine speed

VVT system in ON (OCV is ON): Rough idle or engine stalled