

EMISSION CONTROL SYSTEM (1AZ-FE)

ON-VEHICLE INSPECTION

12020-01

1. INSPECT AIR-FUEL RATIO COMPENSATION SYSTEM

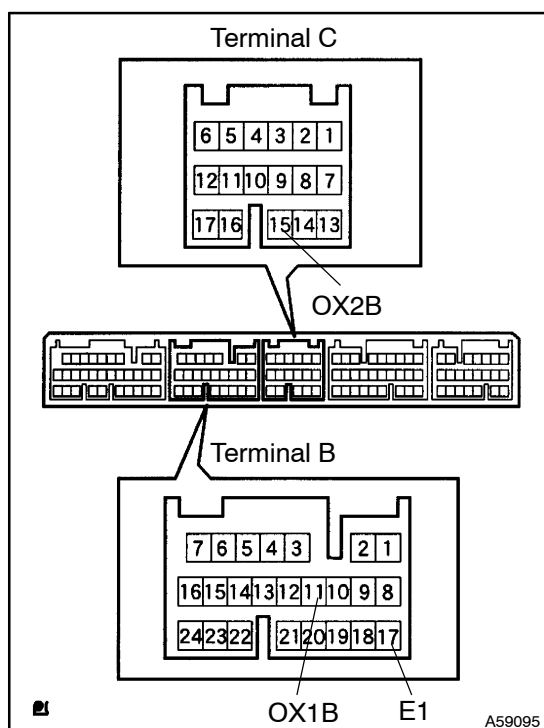
HINT:

You can also check the system by choosing "DATA MONITOR", then "O₂ SENSOR OUTPUT VOLTAGE" on the monitor of the hand-held tester.

- (a) Connect the hand-held tester to the terminal B11 (OX1B) or C15 (OX2B) ⇔ B17 (E1) of the ECU.

CAUTION:

Connect test leads from the back side of the connector with the ECU connected.



- (b) Warm up the oxygen sensor with the engine speed at 2,500 r.p.m for approx. 2 minutes.
 (c) Confirm that the voltage changes between 0V to 1V with the engine speed at 2,500 r.p.m.

OK:

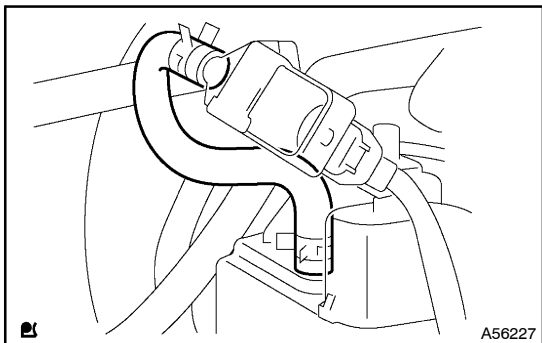
The voltage changes more than 8 times in 10 seconds.

CAUTION:

- Perform the check immediately after the end of the warming up.
- If not confirming the change of voltage, warming up the oxygen sensor again.

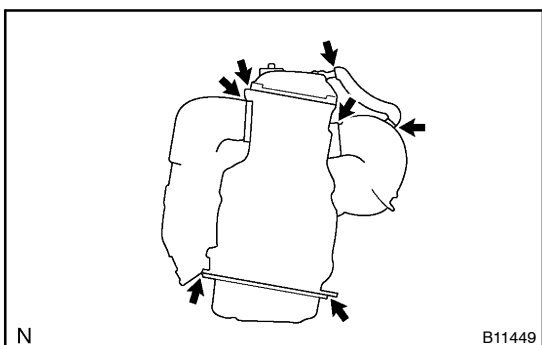
2. INSPECT FUEL CUT OFF RPM

- (a) Increase the engine speed to at least 3,500 r.p.m.
 (b) Use a sound scope to check for injector operating noise.
 (c) Check that when the throttle lever is released, injector operation noise stops momentarily and then resumes.



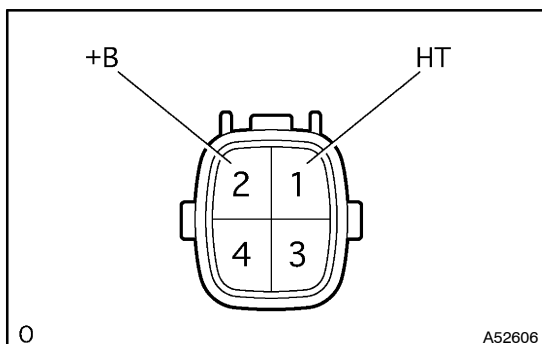
3. INSPECT EVAPORATIVE EMISSION CONTROL SYSTEM

- After starting the engine, disconnect the vacuum hose shown in the illustration.
- Confirm vacuum occurs at the vsv port, when choosing "ACTIVE TEST" and "PURGE VSV" according to the display on hand-held tester.
- Finish "ACTIVE TEST", then connect the vacuum hose again.
- After going to "ECM DATA MONITOR" on the hand-held tester, choose "PURGE VSV" to check the operation of the purge VSV.
- After warm up the engine and drive the vehicle, confirm the VSV turns on from off.



4. VISUALLY INSPECT HOSES, CONNECTIONS AND GASKETS

- Check for cracks, leaks or damage.



5. INSPECT HEATER RESISTANCE OF A/F SENSOR

- Disconnect the A/F sensor connector.
- Using an ohmmeter, measure the resistance between the terminals +B and HT.

Resistance:

1.8 – 3.4 Ω at 20°C (68°F)

5.0 – 7.5 Ω at 500°C (932°F)