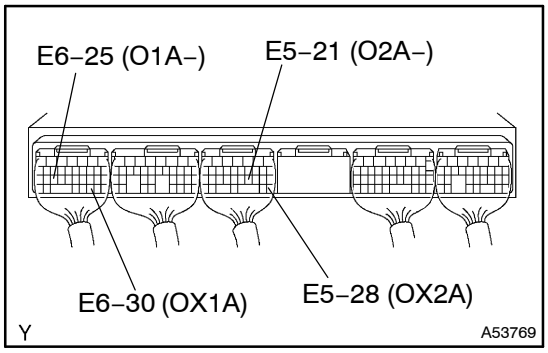
120D3–01

# ON–VEHICLE INSPECTION

### 1. INSPECT A/F COMPENSATION SYSTEM

HINT:

This system can also be checked using the hand–held tester. Switch to DATA MONITOR mode and select O2 SENSOR OUTPUT VOLTAGE.




(a) Connect the intelligent tester II to terminals E6–30 (OX1A) and E6–25 (O1A–) of the ECM.

(b) Connect the intelligent tester II to terminals E5–28 (OX2A) and E5–21 (O2A–) of the ECM.

**NOTICE:**

**Connect test leads to the connector's backside. The connectors should not be disconnected from the ECM.**

(c) Warm up the heated oxygen sensor with the engine speed at 2,500 rpm for approximately 2 minutes.

(d) Check that the voltage changes between 0 V and 1 V with the engine speed at 2,500 rpm.

**OK:**

**The voltage has changed more than 8 times in 10 seconds.**

**NOTICE:**

- **Check the voltage immediately after warming up the heated oxygen sensor.**
- **If change of voltage could not be confirmed, warm up the heated oxygen sensor again.**

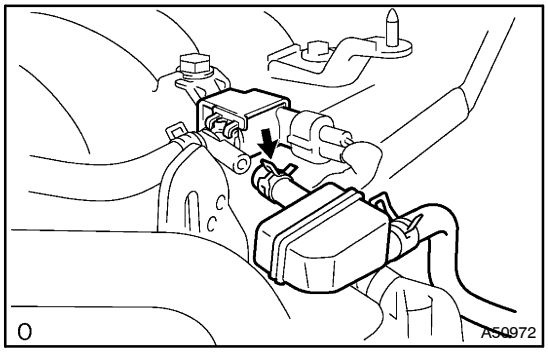
### 2. INSPECT FUEL CUT OFF RPM

(a) Increase the engine speed to at least 3,000 rpm.

(b) Use a sound scope to check the injector operation noise.

**OK:**

**When the throttle lever is released, the injector operation noise stops momentarily but start again soon after.**




### 3. INSPECT EVAPORATIVE EMISSION CONTROL SYSTEM

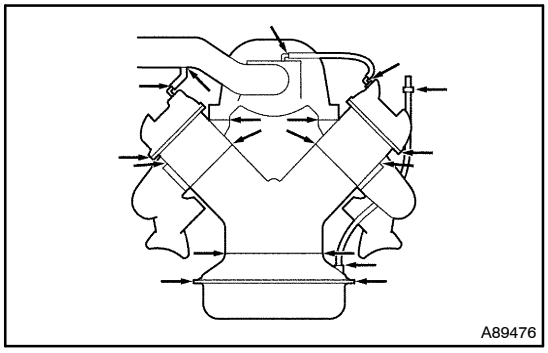
(a) Start the engine. Disconnect the vacuum hose as shown in the illustration.

(b) From the intelligent tester II ACTIVE TEST mode, select PURGE VSV. Check that a vacuum occurs at the VSV port.

(c) Exit ACTIVE TEST mode and reconnect the vacuum hose.

(d) From the intelligent tester II ECU DATA MONITOR mode, select PURGE VSV. Check operation of the purge VSV.

(e) Warm up the engine and drive the vehicle. Confirm that the purge VSV is turned from OFF to ON.

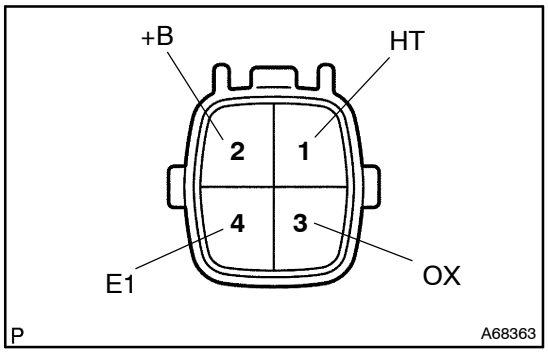



**4. VISUALLY INSPECT HOSES, CONNECTIONS AND GASKETS**

(a) Check for cracks, leaks or damage.

HINT:

- Possible leakage points are indicated in the illustration.
- Removal or problems with the engine oil dipstick, filler cap, PCV hose and other components may cause the engine to run improperly. Disconnection, looseness or cracks in the parts of the air induction system between the throttle body and cylinder head will allow air suction and cause the engine trouble.




**5. INSPECT HEATED OXYGEN SENSOR (HEATER RESISTANCE)**

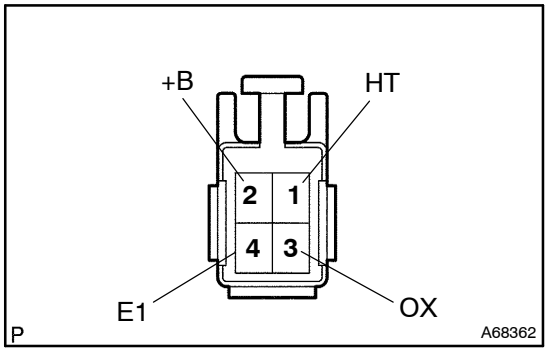
(a) Bank 1 sensor 1, bank 2 sensor 1:
Disconnect the sensor connector.

(b) Measure the resistance between terminals 1 (HT) and 2 (+B).

**Standard:**

| Condition | Specified Condition |
|---|---|
| 20°C (68°F) | 11 to 16 Ω |

If the result is not as specified, replace the sensor.




(c) Bank 1 sensor 2, bank 2 sensor 2:
Disconnect the sensor connector.

(d) Measure the resistance between terminals 1 (HT) and 2 (+B).

**Standard:**

| Condition | Specified Condition |
|---|---|
| 20°C (68°F) | 11 to 16 Ω |

If the result is not as specified, replace the sensor.