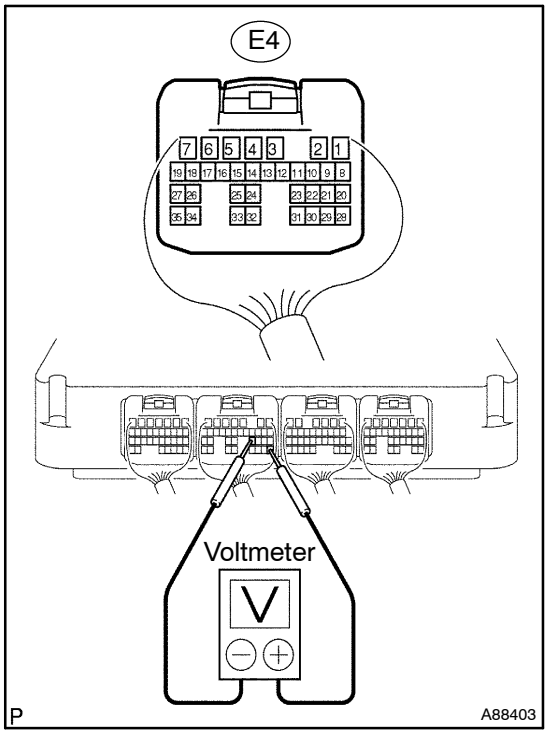
120DH–01

ON–VEHICLE INSPECTION



1. INSPECT AIR–FUEL RATIO SENSOR SYSTEM

(a) Inspect the voltage.

(1) Turn the power switch ON (IG).

(2) Using an voltmeter, measure the voltage between the ECM terminals.

Standard:

Tester Connection	Specified Condition
E4–23 (A1A+) – E4–28 (E1)	3.0 to 3.6 V
E4–22 (A1A–) – E4–28 (E1)	2.7 to 3.3 V

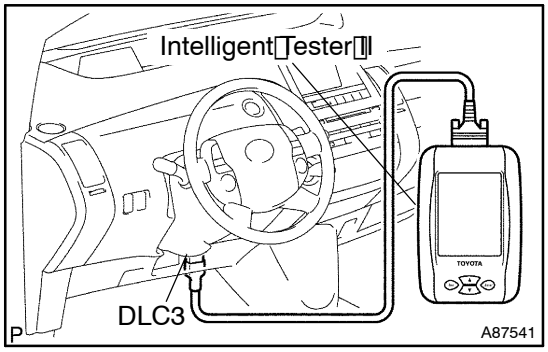
CAUTION:

Connect the test leads from the backside of the connector with the ECM connector connected.

HINT:

The voltage between the ECM terminals is constant regardless of the output voltage of the air–fuel ratio sensor.

If the result is not as specified, check the air–fuel ratio sensor and wire harness.



(b) Check the output waveform.

(1) Set the vehicle to the "Inspection Mode–2WD inspection" (see page 01–5).

(2) Connect the intelligent tester II to the DLC3.

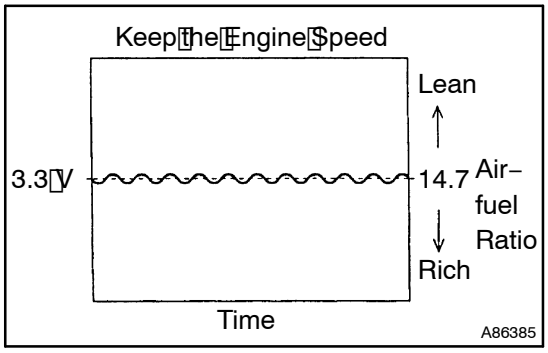
(3) Turn the power switch ON (READY ON).

(4) Turn the intelligent tester II ON.

(5) Select the item: Powertrain / Engine and ECT / Data List / AFS B1 S1.

(6) Warm up the air fuel ratio sensor for approximately 2 minutes at 2,500 rpm of the engine speed.

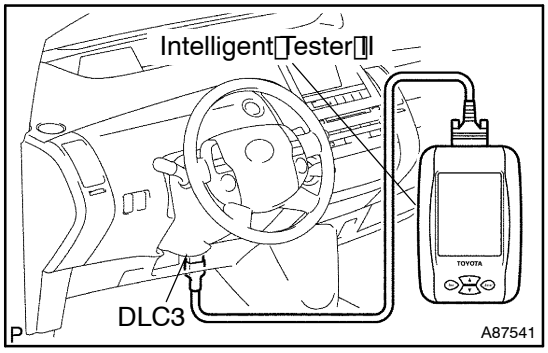
(7) Maintain the engine speed at 2,500 rpm, then check that the waveform of "AFS B1 S1" is output as illustrated.



HINT:

- The waveform of illustration is a sample.
- Only the intelligent tester II shows the waveform of the air fuel ratio sensor.

(8) Check that "O2S B1 S2" fluctuates between 1 and 0 V with the engine speed at 2,500 rpm.



2. INSPECT FUEL CUT OFF RPM

(a) Check the operation.

(1) Start the engine, then warm up.

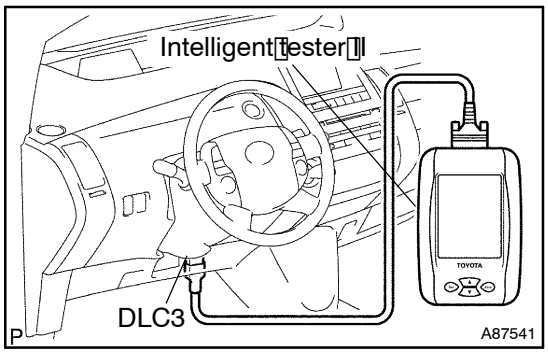
(2) Connect the intelligent tester II to the DLC3.

(3) Turn the intelligent tester II ON.

(4) Select the item: Powertrain / Engine and ECT / Data List / Injector.

(5) Drive the vehicle. When releasing the accelerator pedal after the driving speed is 45 to 60 km/h (28 to 37 mph), read "Injector" of the intelligent tester.

Standard: 0 ms

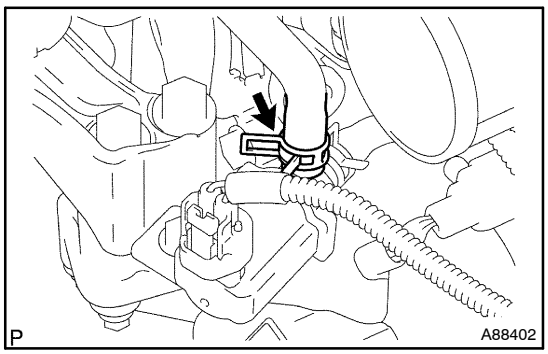


3. INSPECT EVAPORATIVE EMISSION CONTROL SYSTEM

(a) Check the operation.

(1) Set the vehicle to the "Inspection Mode–2WD inspection" (see page 01–5).

(2) Connect the intelligent tester II to the DLC3.



(3) After starting the engine , disconnect the fuel vapor feed hose shown in the illustration.

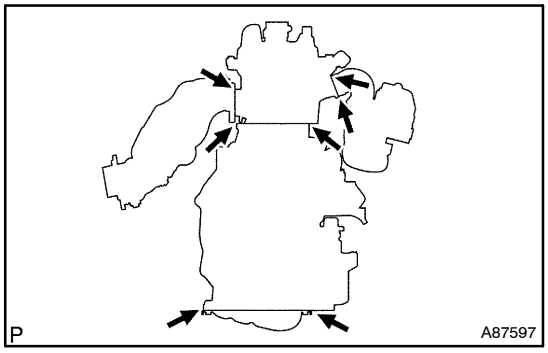
(4) Select the item: Power train / Engine and ECT / Active Test / Activate VSV for Evap Control.

(5) Check that vacuum occurs in the VSV port.

(6) Finish Active Test, then connect the fuel vapor feed hose.

(7) Select the item: Powertrain / Engine and ECT /Data List / EVAP Purge VSV.

(8) Drive the vehicle at the constant speed of the approximately 50 km/h (31 mph). then check that the VSV is turned from ON to OFF.



4. VISUALLY INSPECT HOSES, CONNECTIONS AND GASKETS

(a) Check the appearance.

(1) Visually check that there are no cracks, leaks or damage on the indicated portions in the illustration.

HINT:

- Removing the oil level gauge , oil filler cap or ventilation hoses may cause the engine malfunction or engine stall.
- If the parts between the mass air flow meter and cylinder head are disconnected, loose or cracked, secondary air may be sucked. It could cause the engine malfunction or engine stall.