180B6–01

ON–VEHICLE INSPECTION

1. INSPECT IGNITION COIL AND SPARK TEST

NOTICE:

- **Check that all the fuel injector connectors are not connected before the spark test.**
- **Perform the spark test after setting the "Cranking Request".**

HINT:

The spark test cannot be performed when the master warning lamp lights up.

(a) Check the DTCs (see page 05–25).

NOTICE:

If a DTC is present, perform troubleshooting in accordance with procedures for that DTC.

(b) Remove the rear floor board No. 2 (see page 19–2).

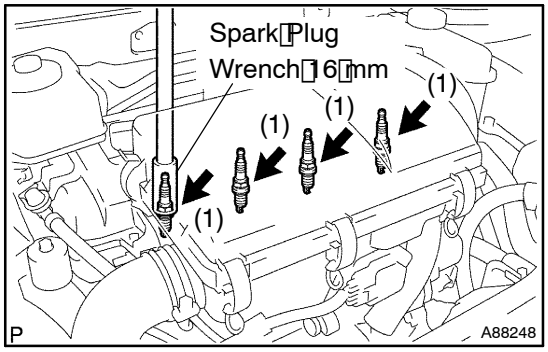
(c) Remove the deck floor box rear (see page 19–2).

(d) Remove the rear floor board No. 3 (see page 19–2).

(e) Disconnect the engine wire No. 3 (battery negative terminal) (see page 19–2).

(f) Remove the engine room relay block No. 2 (see page 18–11).

(g) Remove all the ignition coils No. 1 (see page 18–11).



(h) Remove all the spark plugs.

(1) Using a spark plug wrench 16 mm, remove all the spark plugs.

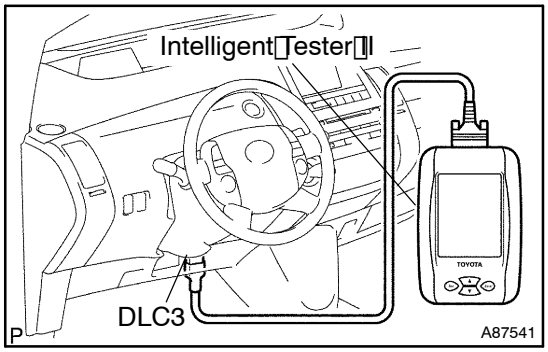
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

(i) Remove the air cleaner (see page 10–15).

(j) Disconnect all the fuel injector connectors.

(k) Install the air cleaner (see page 10–15).

(l) Connect the engine wire No. 3 (battery negative terminal) (see page 19–2).



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

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

(o) Turn the intelligent tester II ON.

(p) Select the item: Powertrain / Hybrid Control / Active Test / Cranking Request.

(q) Forcibly keep the throttle body link fully open by hand.

(r) Install the removed spark plug to the ignition coil No. 1, then connect the ignition coil connector.

(s) Ground the electrode of the spark plug, then check that a spark occurs when pushing the power switch with depressing the brake pedal starts the engine cranking operation.

NOTICE:

- **Keep the ignition coil No. 1 straight when checking. If it is laid on its side, keep it straight for over 5 minutes before checking.**
- **Be sure to ground the spark plug when checking.**
- **Replace the ignition coil No. 1 with a new one if it is dropped and impact is given.**

HINT:

If a spark does not occur, perform the following test.

1	SPARK TEST

NG

2	CHECK CONNECTION OF IGNITION COIL CONNECTOR

NG → CONNECT SECURELY

OK

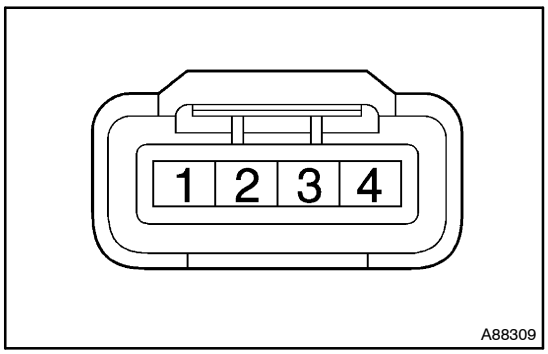
3	REPLACE IGNITION COIL NO. 1

(a) Replace the ignition coil No. 1 with a normal ignition coil No. 1, then perform the test again.

OK → REPLACE IGNITION COIL NO. 1 (See page 18–11)

NG

4	CHECK POWER SUPPLY TO IGNITION COIL No. 1



(a) Disconnect the ignition coil connector.
(b) Turn the power switch ON (IG).
(c) Using a voltmeter, measure the voltage between the terminals.

Standard:

Tester Connection	Specified Condition
1 (+B) – 4 (GND)	9.0 to 14 V

NG → CHECK WIRE HARNESS (BETWEEN IGNITION CONTROL COMPUTER AND IGNITION COIL No. 1)

OK

5	INSPECT CAMSHAFT POSITION SENSOR (See page 18–6)

NG → REPLACE CAMSHAFT POSITION SENSOR (See page 18–8)

OK

6	INSPECT CRANKSHAFT POSITION SENSOR (See page 18–6)

NG → REPLACE CRANKSHAFT POSITION SENSOR (See page 18–10)

OK

7	INSPECT ECM (IGT SIGNAL) (See page 05–18)

NG → REPLACE ECM (See page 10–24)

OK

REPAIR WIRE HARNESS (BETWEEN IGNITION COIL ASSY AND ECM)