

INSPECTION

1. SPARK PLUG

NOTICE:

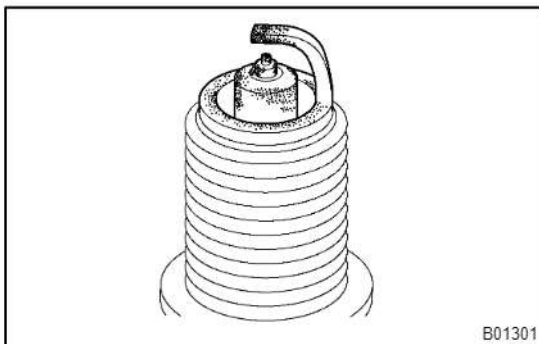
- Never use a wire brush for cleaning.
- Never attempt to adjust the electrode gap on used spark plug.
- Spark plug should be replaced every 192,000 km (120,000 miles).



- (a) Clean the spark plugs.

Air pressure: Below 588 kPa (6.0 kg/cm², 85 psi)

Duration: 20 seconds or less



- (b) Check the spark plug for thread damage and insulator damage.

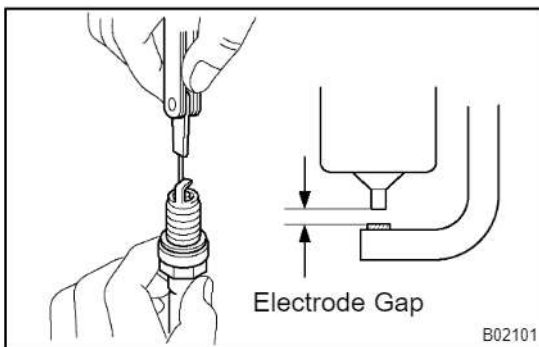
HINT:

If abnormal, replace the spark plug.

Recommended spark plug:

SK16R11 (DENSO made)

IFR5A11 (NGK made)



- (c) Check the spark plug electrode gap.

Electrode gap: 1.1 mm (0.043 in.)

2. CRANK POSITION SENSOR NO.1

- (a) Using an ohmmeter, measure the resistance between terminals.

RESISTANCE:

At cold 835 – 1,400 Ω

At hot 1,060 – 1,645 Ω

NOTICE:

"Cold" and "Hot" on the table express the temperature of the coils themselves. "Cold" is from -10°C (14°F) to 50°C (122°F) and "Hot" is from 50°C (122°F) to 100°C (212°F).

HINT:

If the resistance is not as specified, replace the crank position sensor No. 1.

2004 COROLLA (RM1037U)

3. CRANK POSITION SENSOR

- (a) Using an ohmmeter, measure the resistance between terminals.

RESISTANCE:

At cold 1,630 – 2,740 Ω

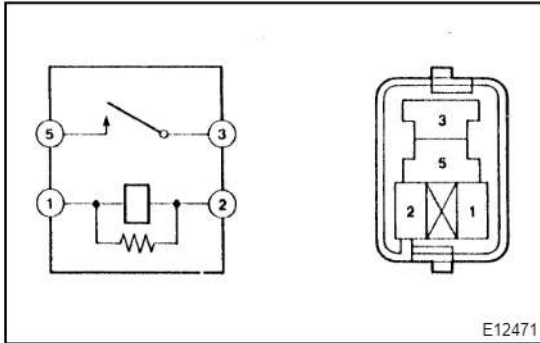
At hot 2,065 – 3,225 Ω

NOTICE:

"Cold" and "Hot" on the table express the temperature of the coils themselves. "Cold" is from -10°C (14°F) to 50°C (122°F) and "Hot" is from 50°C (122°F) to 100°C (212°F).

HINT:

If the resistance is not as specified, replace the crank position sensor.



4. IGNITION RELAY

- (a) Continuity inspection.

- (1) Using an ohmmeter, check that continuity exists between each terminal.

Specified condition:

Between terminal 1 and 2 Continuity

Between terminal 3 and 5 No continuity

- (2) Using an ohmmeter, check that continuity exists between terminals 3 and 5 when the battery voltage is applied across terminals 1 and 2.

IGNITION SYSTEM

ON-VEHICLE INSPECTION

1804B-01

NOTICE:

"Cold" and "Hot" in these sentences express the temperature of the coils themselves. "Cold" is from -10°C (14°F) to 50°C (122°F) and "Hot" is from 50°C (122°F) to 100°C (212°F).

1. INSPECT IGNITION COIL (WITH IGNITER) AND SPARK TEST

- (a) Confirm DTC.

NOTICE:

If DTC is indicated, carry out troubleshooting in accordance with the procedure on the following DTC.

- (b) Check that the spark occurs.
- (1) Remove the ignition coils (with igniter).
 - (2) Using a 16 mm (0.63 in) plug wrench, remove the spark plugs.
 - (3) Install the spark plugs to each ignition coils (with igniter), and connect the ignition coil connectors.
 - (4) Disconnect the 4 injector connectors.
 - (5) Ground the spark plugs.
 - (6) Check if spark occurs while engine is being cranked.

NOTICE:

- **Be sure to ground the spark plug, when checking.**
- **Replace the ignition coil when it is given an impact.**
- **Do not crank the engine for more than 2 seconds.**

HINT:

If the spark does not occur, do the test as follow.

- (c) Using a 16 mm (0.63 in.) plug wrench, install the spark plugs.
Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)
- (d) Install the ignition coil with igniter.
Torque: 9.0 N·m (92 kgf·cm, 80 in·lbf)