

IGNITION SYSTEM

ON-VEHICLE INSPECTION

IGOKH-02

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 IGNITOR AND SPARK TEST

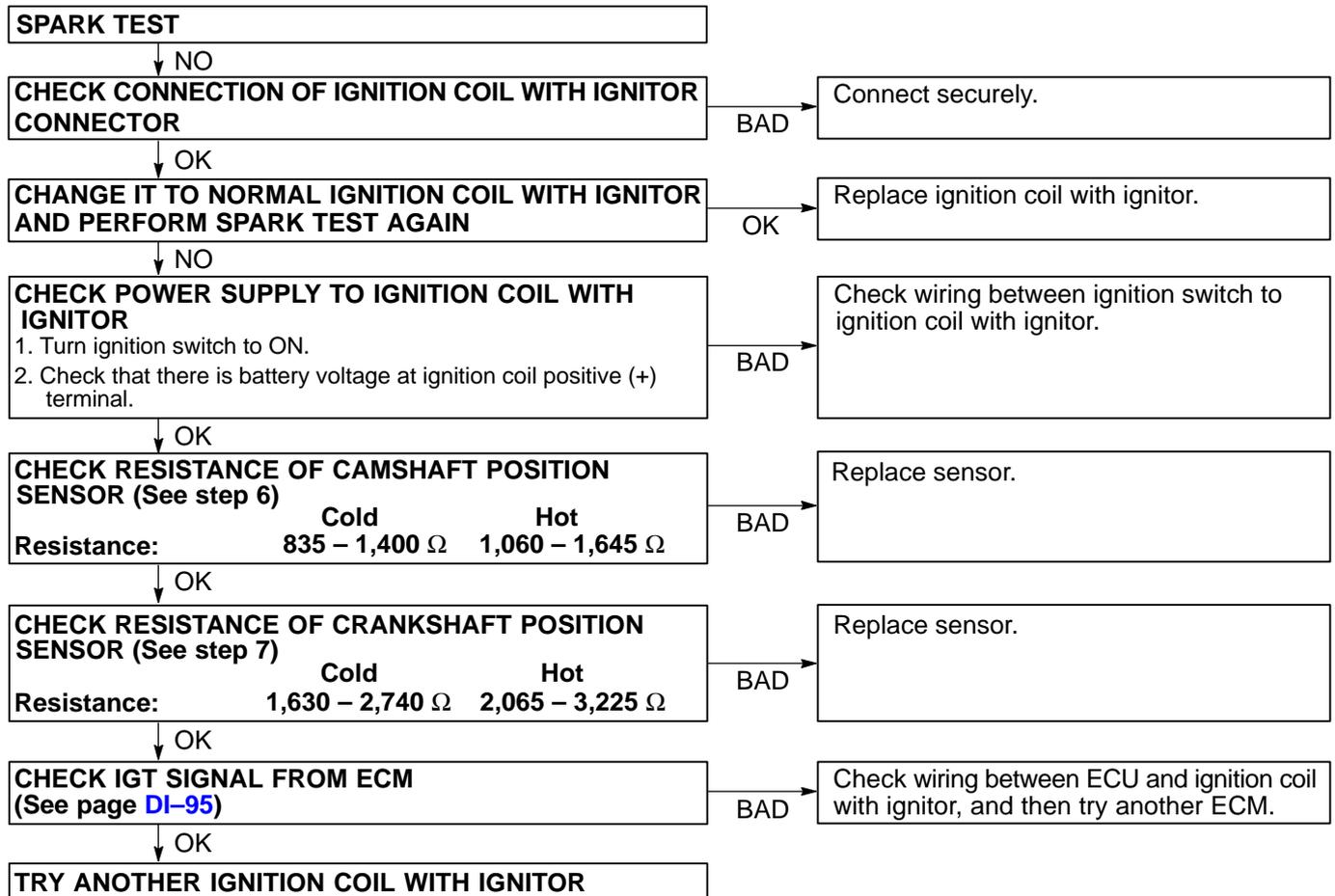
Check that the spark occurs.

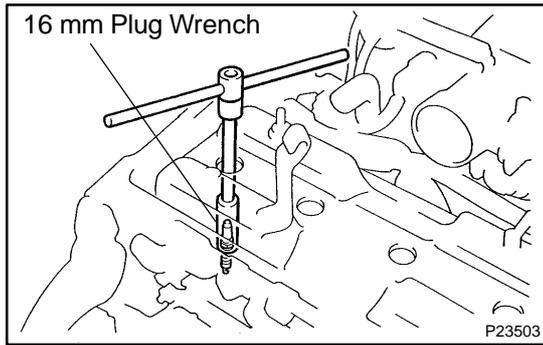
- (1) Remove the ignition coils.
- (2) Remove the spark plugs.
- (3) Install the spark plugs to each ignition coil, and connect the ignition coil connector.
- (4) Ground the spark plug.
- (5) Check if spark occurs while engine is being cranked.

NOTICE:

To prevent gasoline from being injected from injectors during this test, crank the engine for no more than 1 – 2 seconds at time.

If the spark does not occur, do the test as follows:





2. INSPECT SPARK PLUGS

- (a) Remove the ignition coils.
- (b) Using a 16 mm plug wrench, remove the 4 spark plug.

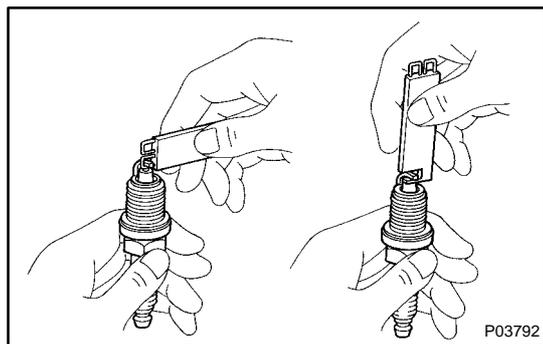


- (c) Using a spark plug cleaner or wire brush, clean the spark plug.
- (d) Check the spark plug for electrode wear, threads damage and insulator damage.

If abnormal, replace the plugs.

Recommended spark plug:

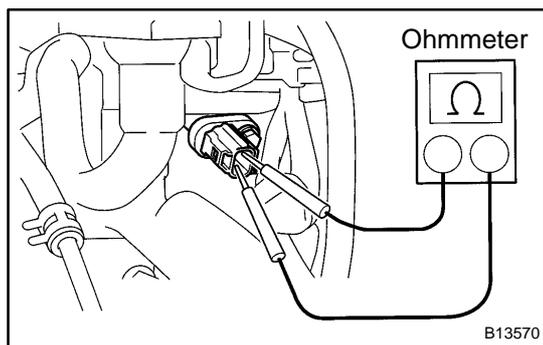
| | |
|------------|-----------|
| DENSO made | K16R-U11 |
| NGK made | BKR5EYA-U |



- (e) Adjust the electrode gap.
Carefully bend the outer electrode to obtain the correct electrode gap.

Correct electrode gap: 0.8 mm (0.031 in.)

- (f) Using a 16 mm plug wrench, reinstall the 4 spark plug.
Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)
- (g) Reinstall the ignition coil.



3. INSPECTION CAMSHAFT POSITION SENSOR

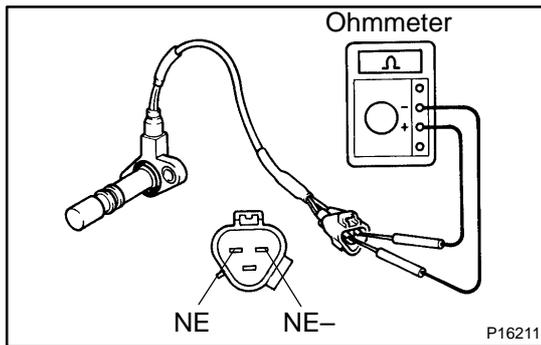
- (a) Disconnect the sensor connector.
- (b) Using an ohmmeter, measure the resistance between the terminals.

Resistance:

| | |
|------|-----------------|
| Cold | 835 – 1,400 Ω |
| Hot | 1,060 – 1,645 Ω |

If the resistance is not as specified, replace the sensor (See page IG-6).

- (c) Reconnect the camshaft position sensor connector.



4. INSPECT CRANKSHAFT POSITION SENSOR

- (a) Remove the sensor (See page IG-7).
- (b) Using an ohmmeter, measure the resistance between terminals NE and NE-.

Resistance:

| | |
|------|--------------------------|
| Cold | 1,630 – 2,740 k Ω |
| Hot | 2,065 – 3,225 k Ω |

If the resistance is not as specified, replace the sensor (See page IG-7).

- (c) Reinstall the sensor.