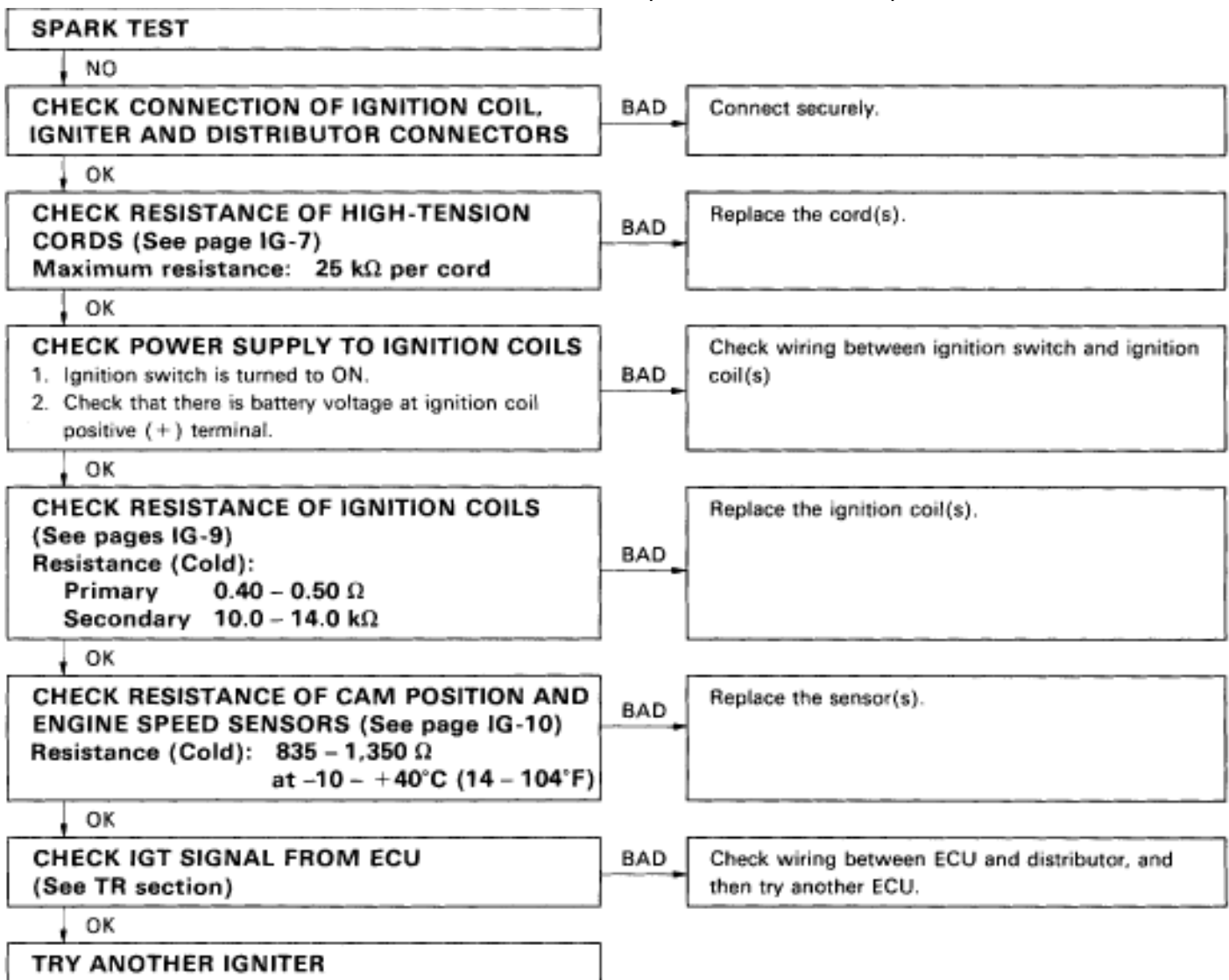


ON-VEHICLE INSPECTION SPARK TEST

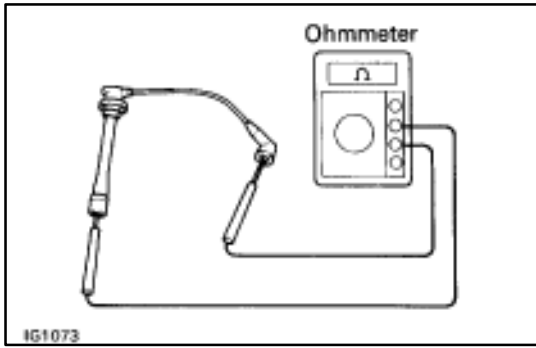
CHECK THAT SPARK OCCURS

- Remove the No.3 timing belt covers.
(See steps 2 to 8 on pages [IG-11](#) to 13)
 - Disconnect the high-tension cords (from the ignition coils) from the distributor caps.
 - Hold the end about 12.5 mm (0.50 in.) from the body ground.
 - Check if spark occurs while engine is being cranked.
- HINT: To prevent gasoline from being injected from injectors during this test, crank the engine for no more than 1–2 seconds at a time.

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



- Reconnect the high-tension cords to the distributor caps.
- Reinstall the No.3 timing belt covers.
(See steps 5 to 11 on pages [IG-17](#) to 19)



INSPECTION OF HIGH-TENSION CORDS

1. REMOVE HIGH-TENSION CORDS

(See steps 1 to 9 on pages IG-11 to 14)

2. INSPECT HIGH-TENSION CORD RESISTANCE

Using an ohmmeter, measure the resistance.

Maximum resistance: 25 kΩ per cord

If the resistance is greater than maximum, replace the high-tension cord.

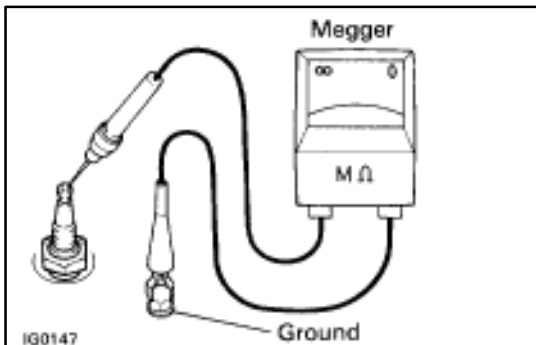
3. REINSTALL HIGH-TENSION CORDS

(See steps 4 to 13 on pages IG-11 to 19)

INSPECTION OF SPARK PLUGS

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 100,000 km (60,000 miles).



1. DISCONNECT HIGH-TENSION CORDS FROM SPARK PLUGS (See steps 1 to 9 on pages IG-11 to 13)

2. INSPECT ELECTRODE

Using a megger (insulation resistance meter), measure the insulation resistance.

Correct insulation resistance: 10 MΩ or more

If the resistance is less than specified, proceed to step 4.

HINT: If a megger is not available, the following simple method of inspection provides fairly accurate results.

(Simple Method)

(a) Quickly race the engine to 4,000 rpm five times.

(b) Remove the spark plug. (See step 3)

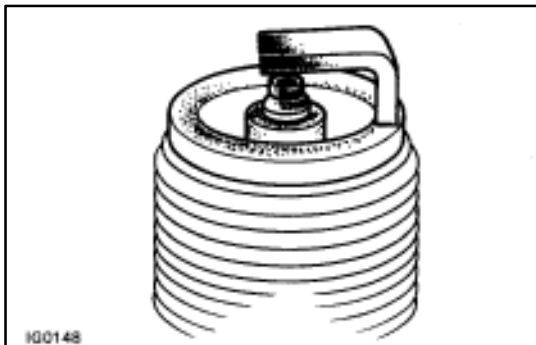
(c) Visually check the spark plug.

If the electrode is dry. Okay

If the electrode is wet Proceed to step 4

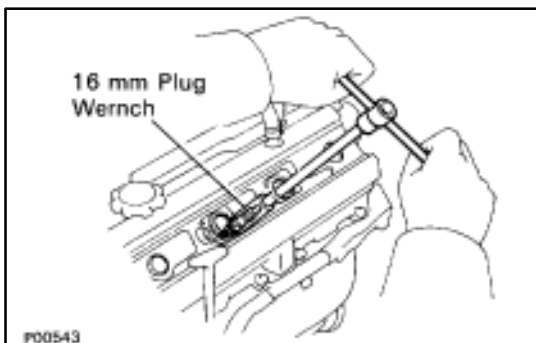
(d) Reinstall the spark plug.

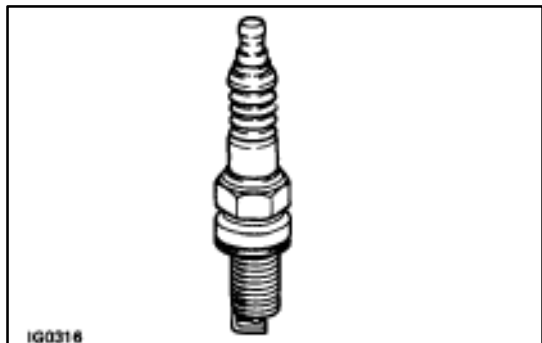
(See step 7 on page IG-8)



3. REMOVE SPARK PLUGS

Using a 16 mm plug wrench, remove the spark plugs.





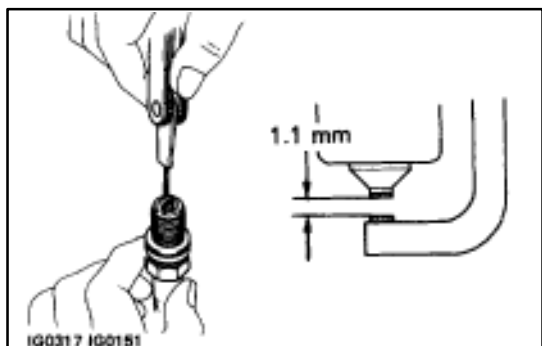
4. VISUALLY INSPECT SPARK PLUGS

Check the spark plug for thread damage and insulator damage.

If abnormal, replace the spark plug.

Recommended spark plug: ND PK20R11

NGK BKR6EP11



5. INSPECT ELECTRODE GAP

Maximum electrode gap: 1.3 mm (0.051 in.)

If the gap is greater than maximum, replace the spark plug.

Correct electrode gap of new spark plug:

1.1 mm (0.043 in.)

NOTICE: If adjusting the gap of a new spark plug, bent only the base of the ground electrode. Do not touch the tip. Never attempt to adjust the gap on the used plug.



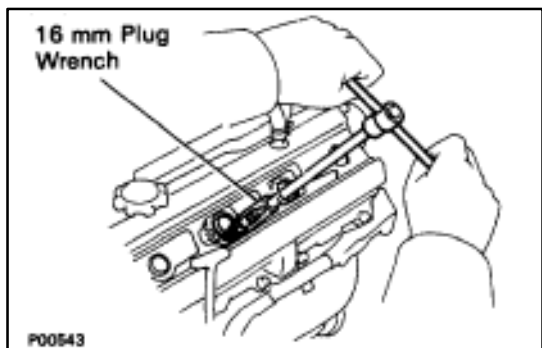
6. CLEAN SPARK PLUGS

If the electrode has traces of wet carbon, allow it to dry and then clean with a spark plug cleaner.

Air pressure: Below 588 kPa (6 kgf/cm², 85 psi)

Duration: 20 seconds or less

HINT: If there are traces of oil, remove it with gasoline before using the spark plug cleaner.



7. REINSTALL SPARK PLUGS

Using a 16 mm plug wrench, install the spark plug.

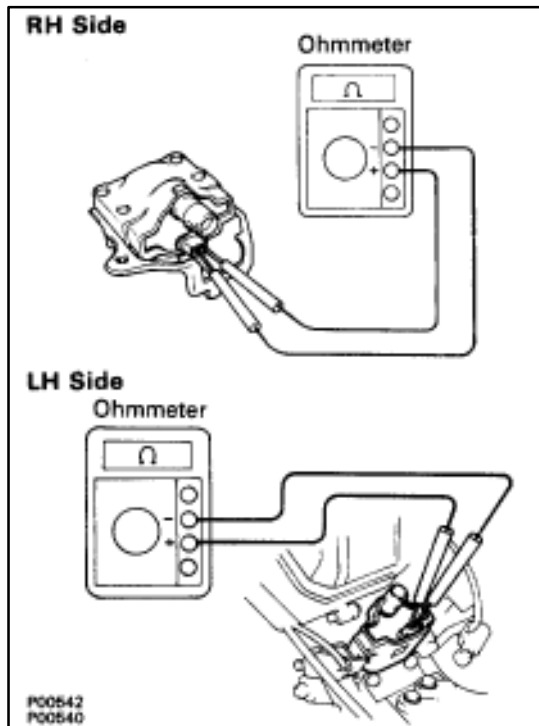
Torque: 18 N·m (180 kgf·cm, 13 ft·lbf)

8. RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS

(See steps 4 to 13 on pages [IG-16](#) to 19)

INSPECTION OF IGNITION COIL

1. (RH IGNITION COIL)
REMOVE IGNITION COIL (See page [IG-21](#))
2. (LH IGNITION COIL)
DISCONNECT IGNITION COIL CONNECTOR AND HIGH-TENSION CORD FROM IGNITION COIL

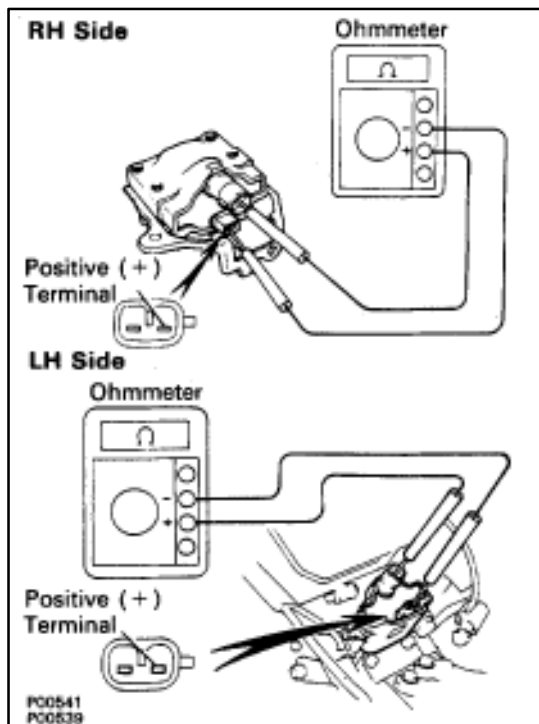


3. INSPECT PRIMARY COIL RESISTANCE

Using an ohmmeter, measure the resistance between positive (+) and negative (-) terminals.

Primary coil resistance (Cold): 0.40–0.50 Ω

If the resistance is not as specified, replace the ignition coil.



4. INSPECT SECONDARY COIL RESISTANCE

Using an ohmmeter, measure the resistance between positive (+) and high-tension terminals.

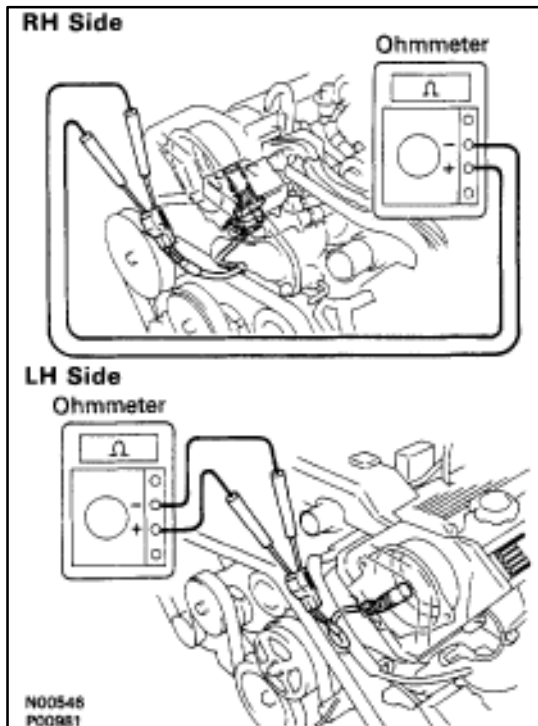
Secondary coil resistance (Cold): 10.0–14.0 k Ω

If the resistance is not as specified, replace the ignition coil.

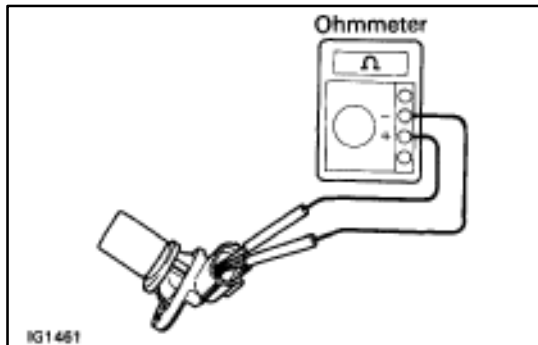
5. (RH IGNITION COIL)
REINSTALL IGNITION COIL (See page [IG-22](#))
6. (LH IGNITION COIL)
RECONNECT IGNITION COIL CONNECTOR AND HIGH-TENSION CORD FROM IGNITION COIL

INSPECTION OF CAM POSITION SENSORS

1. **DISCONNECT CAM POSITION SENSOR CONNECTORS**
 - (a) (RH Cam Position Sensor)
Disconnect the cam position sensor connector from the ignition coil bracket.
(See steps 5 (a) on page [IG-24](#))
 - (b) Disconnect the cam position sensor connectors.



2. **INSPECT CAM POSITION SENSOR RESISTANCE**
Using an ohmmeter, measure the resistance between terminals.
Resistance (Cold):
835–1,350 Ω at -10 – $+40^{\circ}\text{C}$ (14 – 104°F)
If the resistance is not as specified, replace the cam position sensor.
3. **RECONNECT CAM POSITION SENSOR CONNECTORS**



INSPECTION OF ENGINE SPEED SENSOR

1. **REMOVE ENGINE SPEED SENSOR**
(See page [IG-30](#))
2. **INSPECT ENGINE SPEED SENSOR RESISTANCE**
Using an ohmmeter, measure the resistance between terminals.
Resistance (Cold):
835–1,350 Ω at -10 – $+40^{\circ}\text{C}$ (14 – 104°F)
If the resistance is not as specified, replace the engine speed sensor.
3. **REINSTALL ENGINE SPEED SENSOR**
(See page [IG-30](#))

INSPECTION OF ENGINE SPEED SENSOR

(See procedure Spark Test on page [IG-6](#))