

ON-VEHICLE INSPECTION

4A-GE

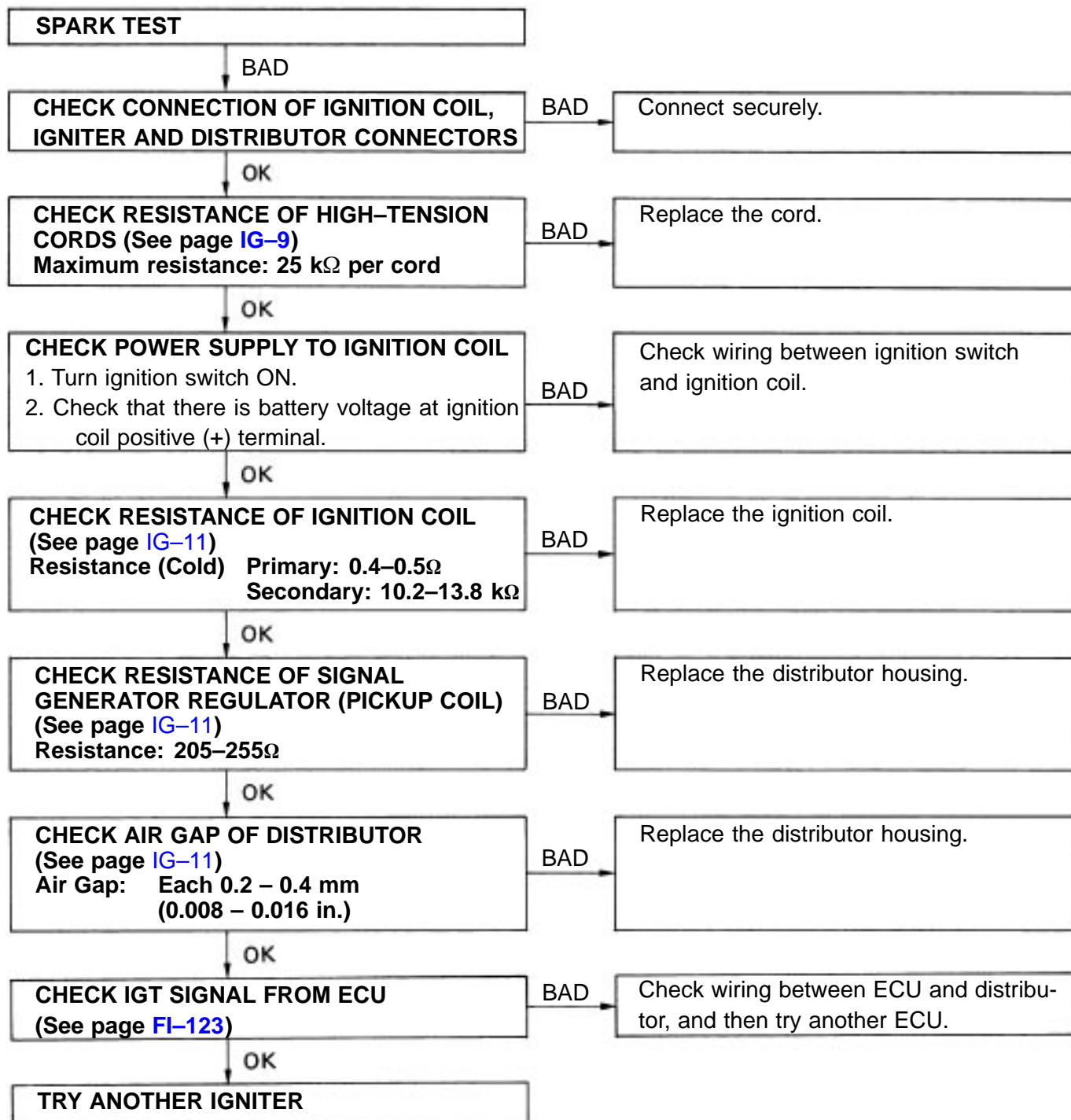
SPARK TEST

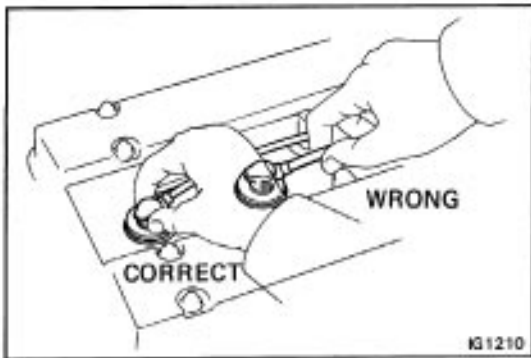
CHECK THAT SPARK OCCURS

- Disconnect the high-tension cord from the distributor.
- Hold the end about 12.7 mm (0.50 in.) from body of car.
- 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 time.

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

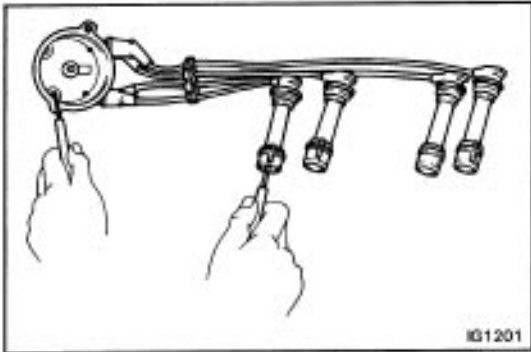




INSPECTION OF HIGH-TENSION CORD

1. REMOVE PLUG CORD COVER
2. CAREFULLY REMOVE HIGH-TENSION CORDS BY THEIR RUBBER BOOTS

NOTICE: DO NOT pull on the cords or bend the wires. The conductor inside may be damaged.



3. INSPECT RESISTANCE OF HIGH-TENSION CORD AND DISTRIBUTOR CAP

Using an ohmmeter, check that the resistance does not exceed the maximum.

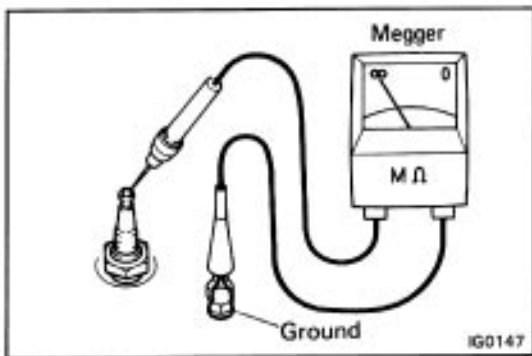
Maximum resistance: 25 k Ω per cord

If more than maximum, check the terminals, and replace the high-tension cord and/or distributor cap as required.

INSPECTION OF SPARK PLUG (Platinum Tipped Spark Plug)

NOTICE:

- Never use a wire brush for cleaning.
- Never attempt to adjust gap on used plug.
- Spark plugs should be replaced every 60,000 miles (100,000 km).



1. REMOVE PLUG CORD COVER
2. DISCONNECT HIGH-TENSION CORDS FROM SPARK PLUGS
3. INSPECT ELECTRODE

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

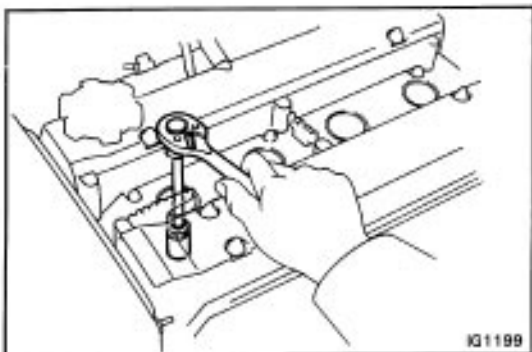
Standard insulation resistance: More than 10 M Ω

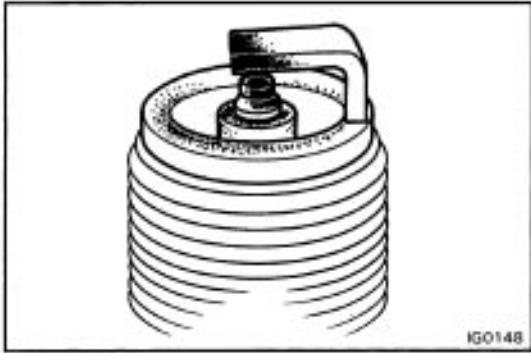
If less than 10 M Ω , proceed to step 4.

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

[Simple inspection method]

- Quickly race the engine to 4,000 rpm five times.
- Using a plug wrench (16 mm), remove the spark plug.





- Visually inspect the spark plugs.
If the electrode is dry Okay
If the electrode is wet Proceed to step 5

4. REMOVE SPARK PLUGS

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



5. VISUALLY INSPECT SPARK PLUGS

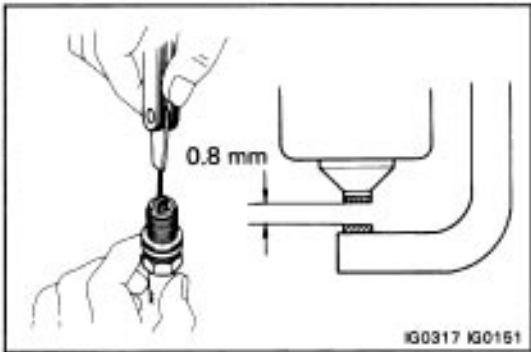
Inspect the spark plugs for thread or insulator damage.

If defective, replace the plug.

Recommended spark plugs:

ND PK20R8

NGK BKR6EP8



6. INSPECT ELECTRODE GAP

Maximum limit: 1.0 mm (0.039 in.)

If not, replace the plug.

Correct electrode gap of new plug:

0.8 mm (0.031 in.)

If adjusting the gap of a new plug, bend only the base of the ground electrode, do not touch the tip.



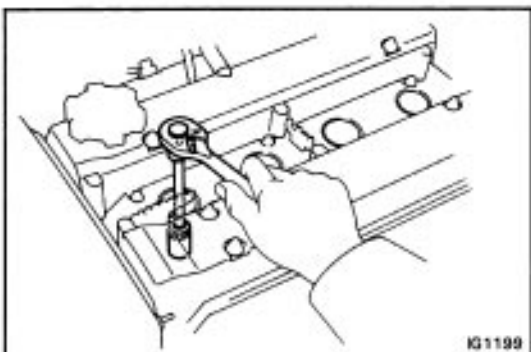
7. CLEAN SPARK PLUGS

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

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

Duration: 20 seconds or less

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



8. INSTALL SPARK PLUGS

Using a plug wrench (16 mm), install and torque the spark plugs.

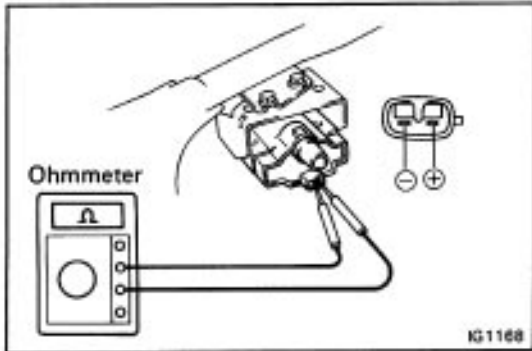
Torque: 180 kg-cm (13 ft-lb, 18 N-m)

9. RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS

10. INSTALL PLUG CORD COVER

INSPECTION OF IGNITION COIL

1. DISCONNECT HIGH-TENSION CORD AND CONNECTOR FROM IGNITION COIL

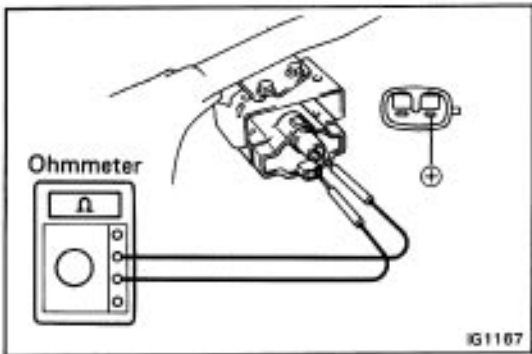


2. INSPECT PRIMARY COIL RESISTANCE

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

Primary coil resistance (Cold): 0.4 – 0.5Ω

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

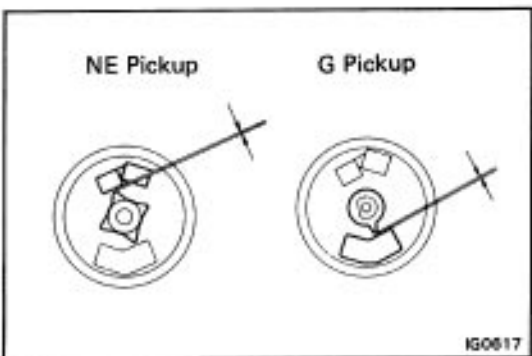


3. INSPECT SECONDARY COIL RESISTANCE

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

Secondary coil resistance (Cold): 10.2 – 13.8 kΩ

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



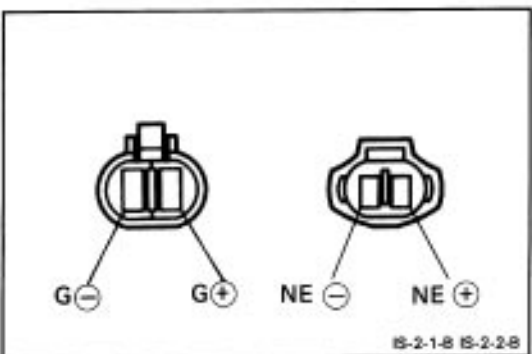
INSPECTION OF DISTRIBUTOR

1. INSPECT AIR GAPS

Using a feeler gauge, measure the gap between the signal rotor and pickup coil projection.

Air gap: 0.2 – 0.4 mm (0.008 – 0.016 in.)

If the gap is not within specification, replace the distributor housing.



2. CHECK SIGNAL GENERATOR (PICKUP COIL) RESISTANCE

Using an ohmmeter, measure the resistance of the two signal generators.

“G” pickup coil resistance:

G (+) – G (-) 205 – 255 Ω

“NE” pickup coil resistance:

NE (+) – NE (-) 205 – 255 Ω

If the resistance is not as specified, replace the distributor housing.