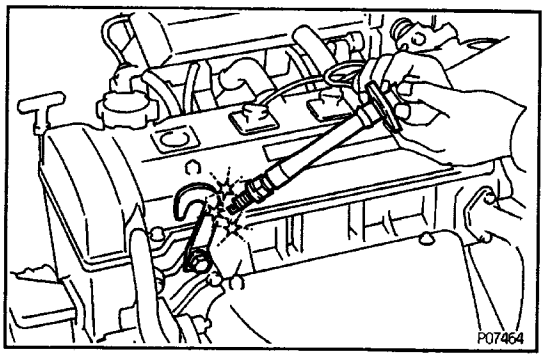


ON-VEHICLE INSPECTION

IG04M–01

SPARK TEST

CHECK THAT SPARK OCCURS

(a) Disconnect the high-tension cords from the spark plugs.
(b) Remove the spark plugs.
(c) Install the spark plugs to the each high-tension cord.
(d) Ground the spark plug.
(e) 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:

SPARK TEST

NO

CHECK CONNECTION OF IIA CONNECTORS — BAD → Connect securely.

OK

CHECK RESISTANCE OF HIGH-TENSION CORD
(See page IG-7)
Maximum resistance: 25 kΩ per cord — BAD → Replace the cord (s).

OK

CHECK POWER SUPPLY TO IGNITION COIL
1. Turn ignition switch ON.
2. Check that there is battery voltage at ignition coil positive (+) terminal. — BAD → Check wiring between ignition switch and ignition coil.

OK

CHECK RESISTANCE OF IGNITION COIL
(See page IG-10)

Resistance:	(Cold)	(Hot)
Primary	1.11 - 1.75Ω	1.41 - 2.05 Ω
Secondary	9.0 - 15.7 kΩ	11.4 - 18.4 kΩ

BAD → Replace the ignition coil.

OK

CHECK RESISTANCE OF SIGNAL GENERATOR (PICKUP COIL)
(See page IG-11)

Resistance:	(Cold)	(Hot)
G(+) and G(-)	186-275 Ω	240-325 Ω
NE(+) and NE(-)	370-550 Ω	475-650 Ω

BAD → Replace distributor housing assembly.

OK

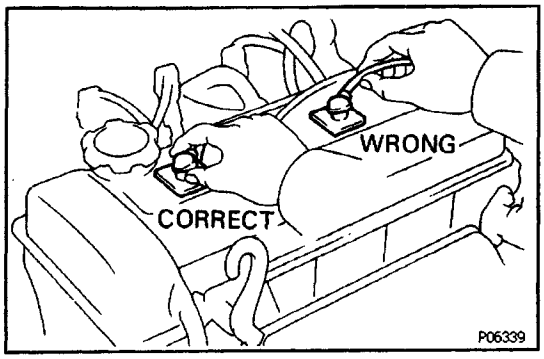
CHECK AIR GAP OF DISTRIBUTOR
(See page IG-10)
Air gap: 0.2 - 0.4 mm (0.008 - 0.016 in.) — BAD → Replace the distributor housing assembly.

OK

CHECK IGT SIGNAL FROM ECM
(See page EG-367 or EG-494) — BAD → Check wiring between ECM and IIA, only then try another ECM.

OK

TRY ANOTHER IGNITER



HIGH-TENSION CORDS INSPECTION

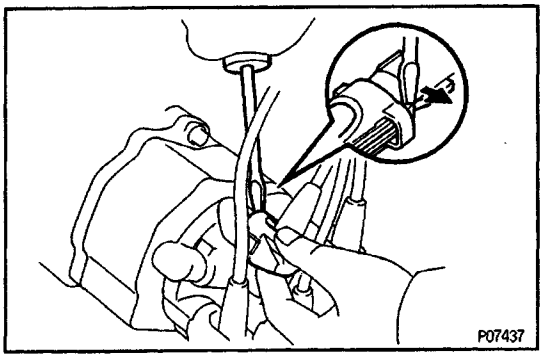
IG04N-01

1. DISCONNECT HIGH-TENSION CORDS FROM SPARK PLUGS

Disconnect the high - tension cords at the rubber boot.

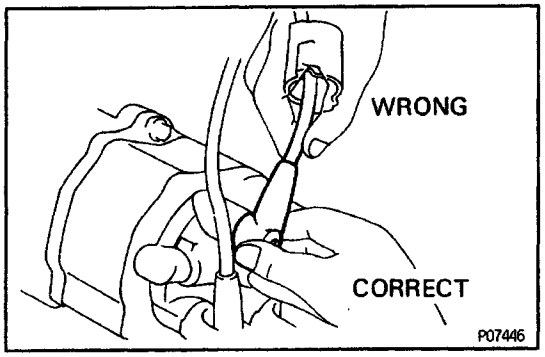
Do not pull on the cords.

NOTICE: Pulling on or bending the cords may damage the conductor inside.



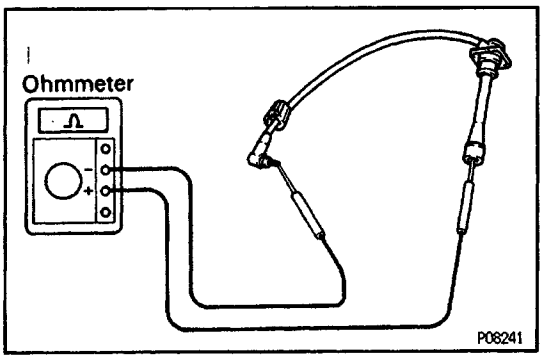
2. DISCONNECT HIGH-TENSION CORDS FROM DISTRIBUTOR CAP

(a) Using a screwdriver, lift up the lock clow and disconnect the holder from the distributor cap.



(b) Disconnect the high-tension cord at the grommet. Do not pull on the cords.

NOTICE: Pulling on or bending the cords may damage the conductor inside.



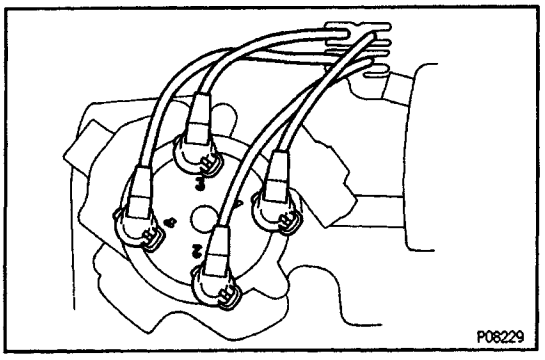
3. INSPECT HIGH-TENSION CORD RESISTANCE

Using an ohmmeter, measure the resistance.

Maximum resistance:

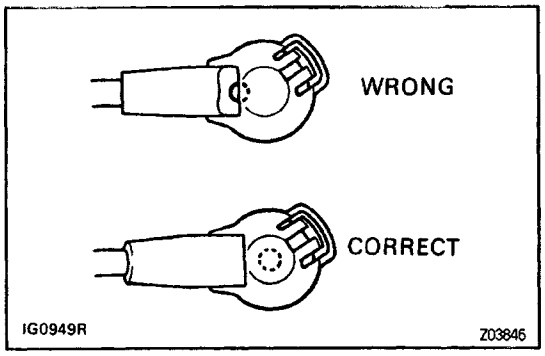
25 kΩ per cord

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

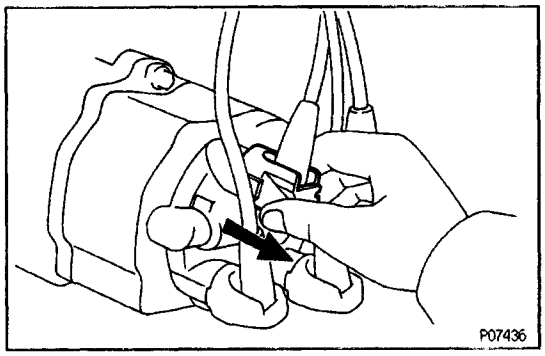


4. RECONNECT HIGH - TENSION CORDS TO DISTRIBUTOR CAP

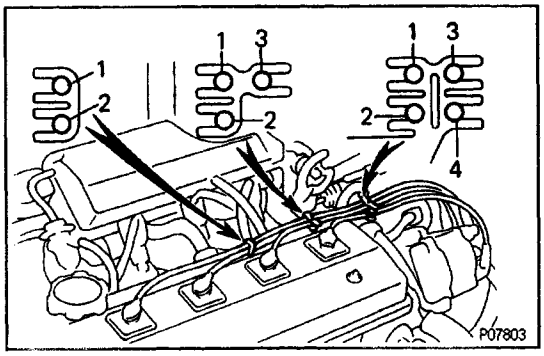
(a) Connect the holder and grommet portion to the distributor cap as shown the illustration.



NOTICE: Check that the holder is correctly installed to the grommet and distributor cap as shown in the illustration.



(b) Check that the lock claw of the holder is engaged by lightly pulling the holder.

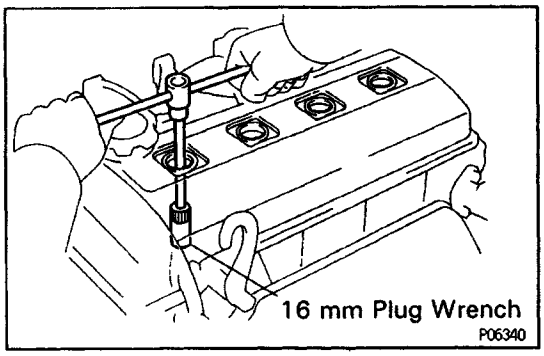


5. RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS

Secure the high-tension cords with the clamps as shown in the illustration.

IG04P-01

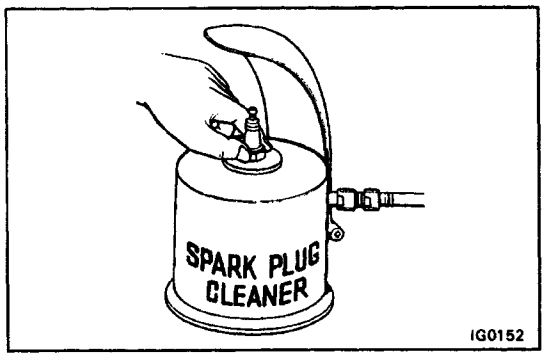
SPARK PLUGS INSPECTION



1. DISCONNECT HIGH - TENSION CORDS FROM SPARK PLUGS

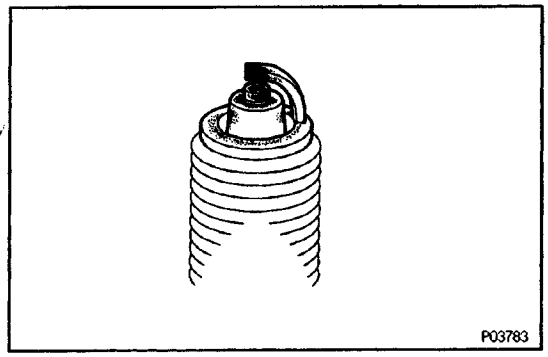
2. REMOVE SPARK PLUGS

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



3. CLEAN SPARK PLUGS

Using a spark plug cleaner or wire brush, clean the spark plug.



4. VISUALLY INSPECT SPARK PLUGS

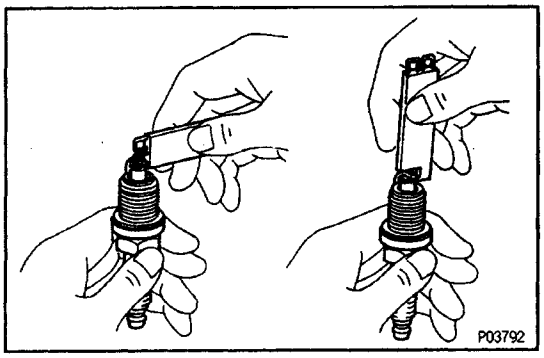
Check the spark plug for electrode wear, thread damage and insulator damage.

If abnormal, replace the spark plug.

Recommended spark plug:

K16R-U for ND

BKR5EYA for NGK

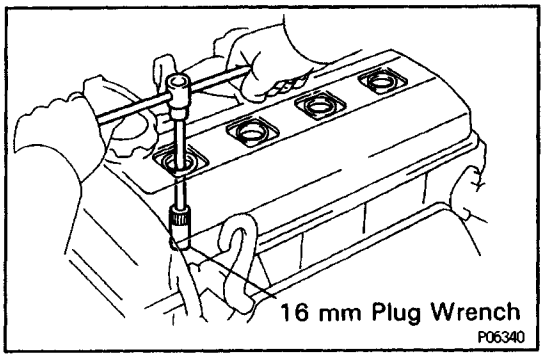


5. ADJUST ELECTRODE GAP

Carefully bend the outer electrode to obtain the correct electrode gap.

Correct electrode gap:

0.8 mm (0:031 in.)



6. INSTALL SPARK PLUGS

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

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

7. RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS

IG04Q-01

IIA INSPECTION

NOTICE: "Cold" and "Hot" in the following sentences express the temperature of the coils themselves. "Cold" is from -10°C (14°F) to 50°C (104°F) and "Hot" is from 50°C (104°F) to 1000 C (212°F).

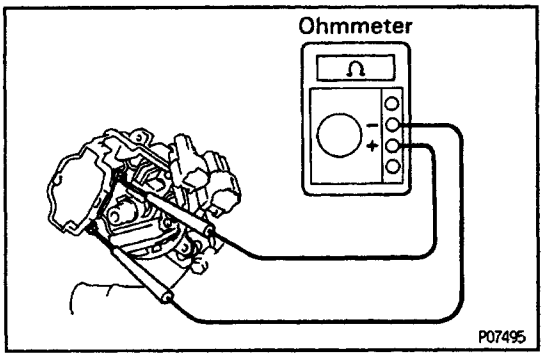
1. DISCONNECT DISTRIBUTOR CONNECTORS

2. REMOVE DISTRIBUTOR CAP

3. REMOVE ROTOR

4. REMOVE IGNITION COIL DUST COVER

Ignition Coil



5. INSPECT PRIMARY COIL RESISTANCE

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

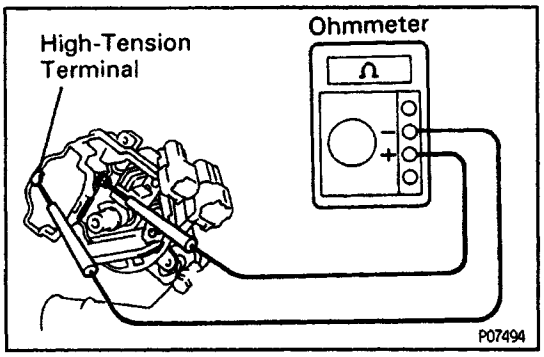
Primary coil resistance (Cold):

1.11 -1.75Ω

Primary coil resistance (Hot):

1.41 -2.05Ω

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



6. INSPECT SECONDARY COIL RESISTANCE

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

Secondary coil resistance (Cold):

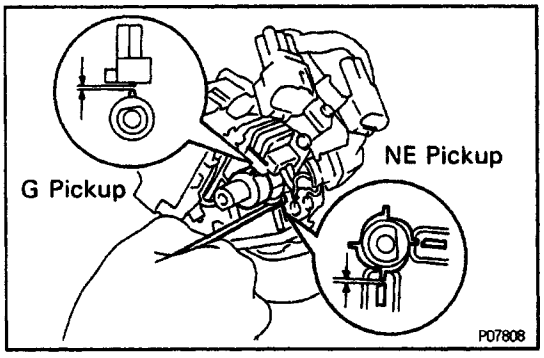
9.0 - 15.7 kΩ

Secondary coil resistance (Hot):

11.4 - 18.4 kΩ

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

Distributor



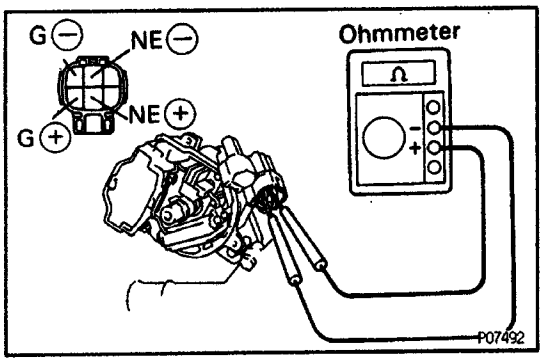
7. INSPECT AIR GAP

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

Air gap:

0.2 - 0.4 mm (0.008 - 0.016 in.)

If the air gap is not as specified, replace the distributor housing assembly.



8. INSPECT SIGNAL GENERATOR (PICKUP COIL) RESISTANCE

Using an ohmmeter, measure the resistance between the terminals.

Pickup coil resistance (Cold):
G(+) and G(-)
185-275 Ω
NE(+) and NE(-)
370 - 550Ω
Pickup coil resistance (Hot):
G(+) and G(-)
240 - 325Ω
NE(+) and G(-)
475-650 Ω

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

9. REINSTALL IGNITION COIL DUST COVER
10. REINSTALL ROTOR
11. REINSTALL DISTRIBUTOR CAP
12. RECONNECT DISTRIBUTOR CONNECTORS

Igniter

(See procedure Spark Plug)