

# ON-VEHICLE INSPECTION

## 4A-FE

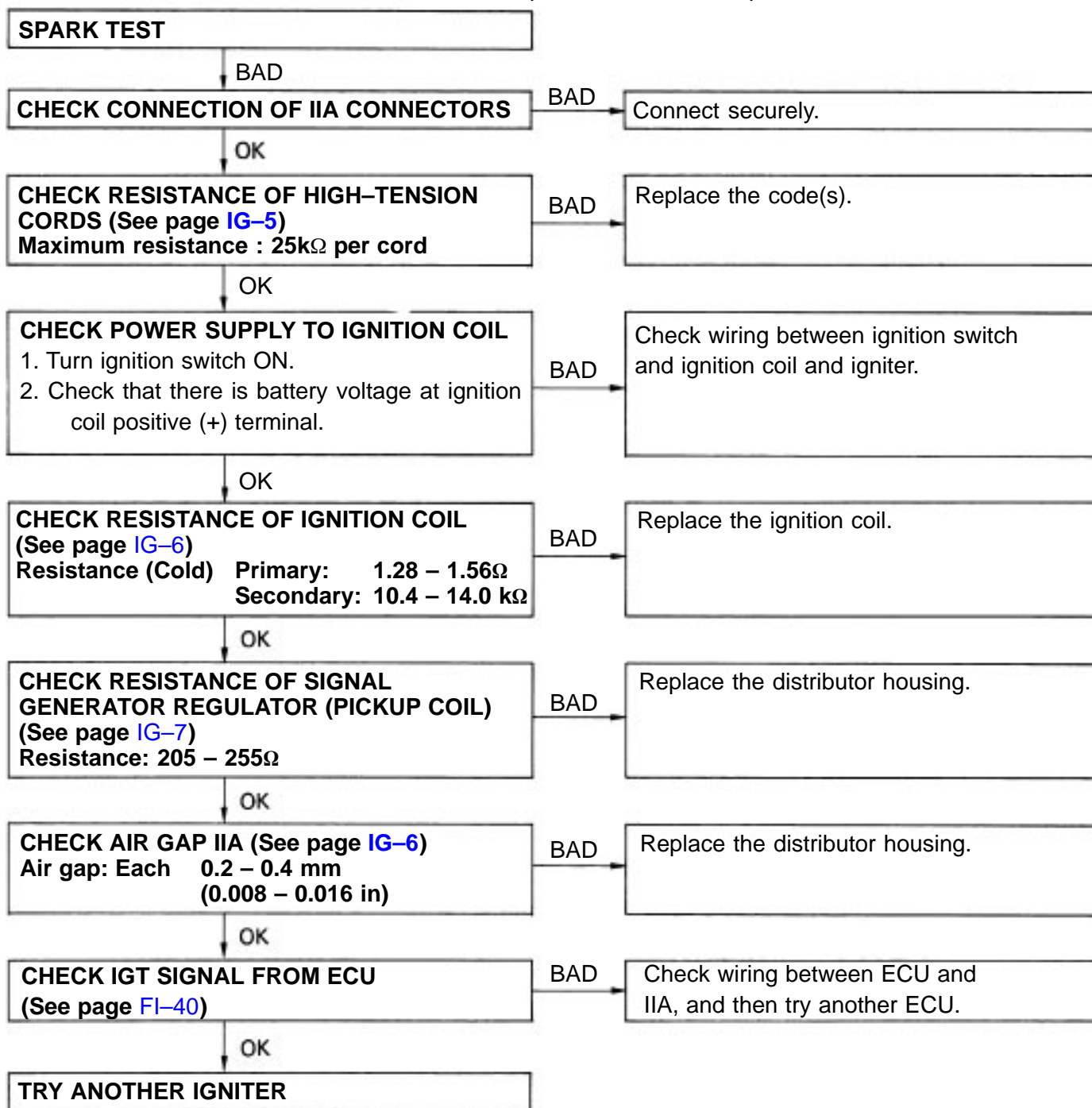
### SPARK TEST

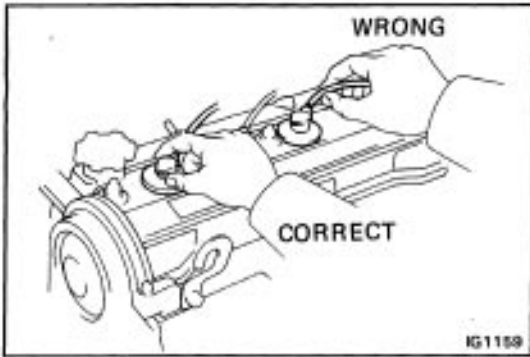
#### CHECK THAT SPARK OCCURS

- (a) Disconnect high-tension cords from spark plugs.
- (b) Remove the spark plugs. (See page IG-5)
- (c) Install the spark plugs to 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.

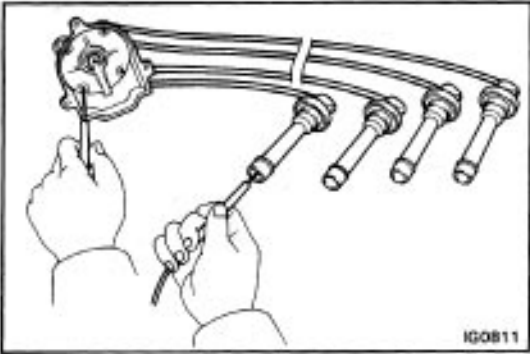
If the spark does not occur, perform the test as follows:





## INSPECTION OF HIGH-TENSION CORDS

- CAREFULLY DISCONNECT HIGH-TENSION CORDS BY THEIR RUBBER BOOTS FROM SPARK PLUGS**  
NOTICE: Pulling on or bending the cords may damage the conductor inside.
- REMOVE IIA CAP WITHOUT DISCONNECTING HIGH-TENSION CORDS**



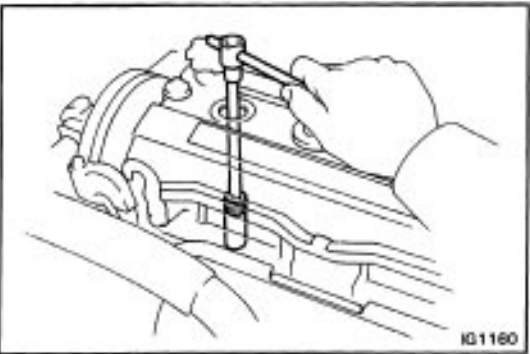
### 3. INSPECT HIGH-TENSION CORD RESISTANCE

Using an ohmmeter, measure the resistance without disconnecting the IIA cap.

**Maximum resistance: 25 kΩ per cord**

If the resistance is greater than maximum, check the terminals. If necessary, replace the high-tension cord and/or IIA cap.

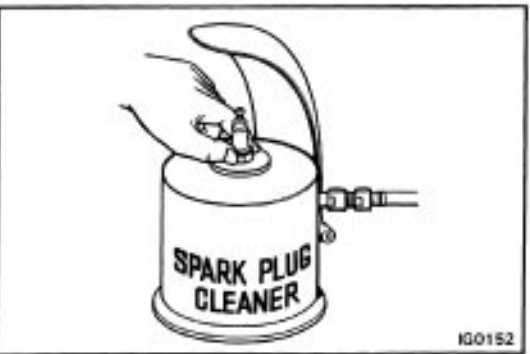
- REINSTALL IIA CAP**
- RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS**



## INSPECTION OF SPARK PLUGS

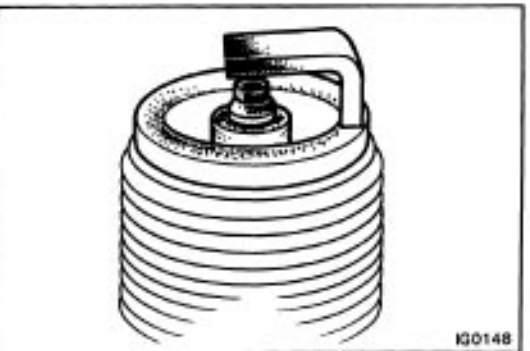
- DISCONNECT HIGH-TENSION CORDS FROM SPARK PLUGS**
- REMOVE SPARK PLUGS**

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.



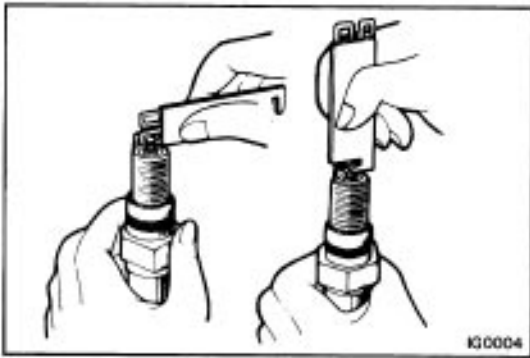
### 4. VISUALLY INSPECT SPARK PLUGS

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

If abnormal, replace the spark plug.

**Recommended spark plug: ND Q16R-U**

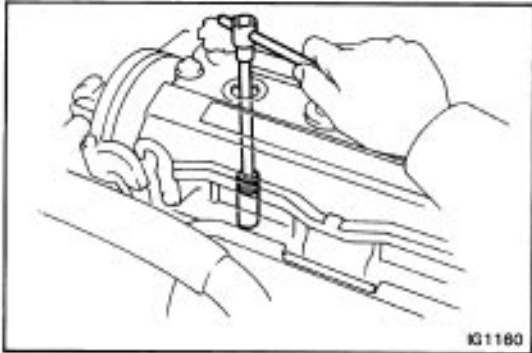
**NGK BCPR5EY**



### 5. ADJUST ELECTRODE GAP

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

**Correct electrode gap: 0.8 mm (0.031 in.)**

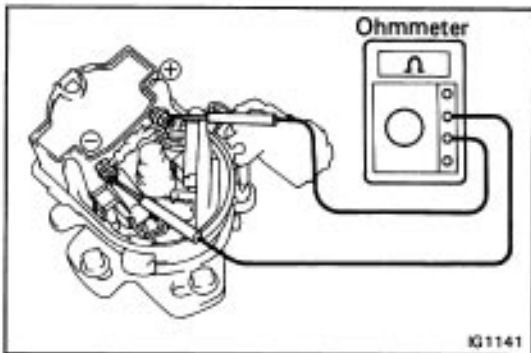


### 6. INSTALL SPARK PLUGS

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

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

### 7. RECONNECT HIGH-TENSION CORDS TO SPARK PLUGS



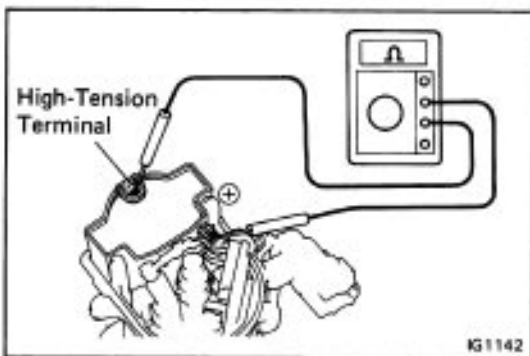
## INSPECTION OF IGNITION COIL

### 1. INSPECT PRIMARY COIL RESISTANCE

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

**Primary coil resistance (Cold): 1.28 – 1.56Ω**

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

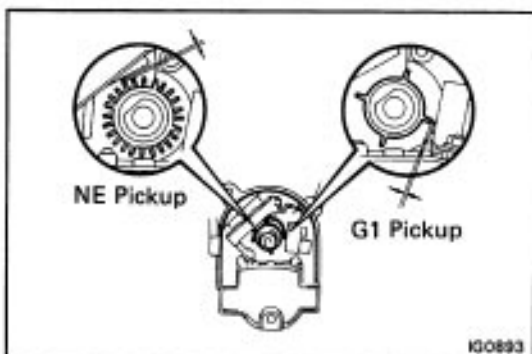


### 2. INSPECT SECONDARY COIL RESISTANCE

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

**Secondary coil resistance (Cold): 10.4 – 14.0 kΩ**

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



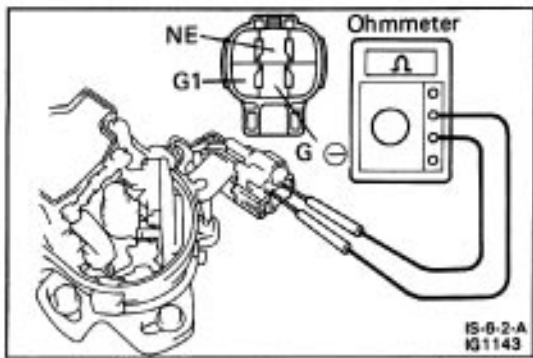
## INSPECTION OF IIA

### 1. INSPECT AIR GAP

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

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

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



## 2. INSPECT SIGNAL GENERATOR (PICKUP COIL) RESISTANCE

Using an ohmmeter, measure the resistance between the terminals (G1 and G (-), NE and G (-)).

**Pickup coil resistance (Cold): 205 – 255Ω**

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

## INSPECTION OF IGNITER

(See procedure in Spark Test on page [IG-4](#))