

IGNITION SYSTEM

(2RZ—FE, 3RZ—FE)

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(5VZ—FE)

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(2RZ—FE, 3RZ—FE)**PREPARATION****RECOMMENDED TOOLS**

IG008—08

	09082—00050 TOYOTA Electrical Tester Set.	
	09200—00010 Engine Adjust Kit.	

IG

EQUIPMENT

IG00T—00

Spark plug cleaner	
Torque wrench	

SSM (SPECIAL SERVICE MATERIALS)

IG00U—00

08826—00080 Seal Packing Black or equivalent (FIPG)	Ignition coil
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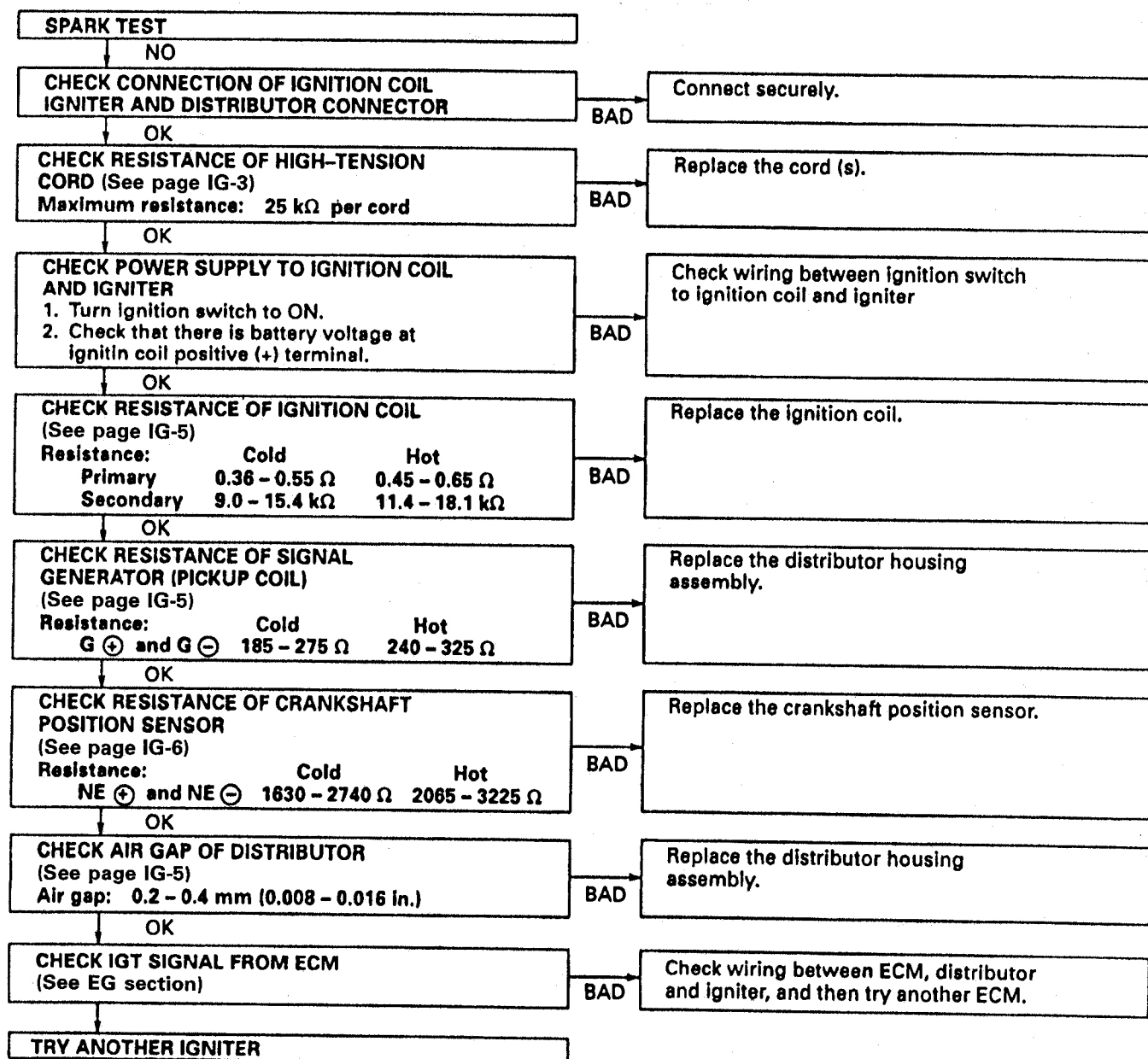
**ON—VEHICLE INSPECTION
SPARK TEST**

IG008—02

CHECK THAT SPARK OCCURS

- Disconnect the high—tension cords from the spark plugs.
 - Remove the spark plugs.
 - Install the spark plugs to each high—tension cord.
 - Ground the spark plug.
 - 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:



V06122

10QJ1-01

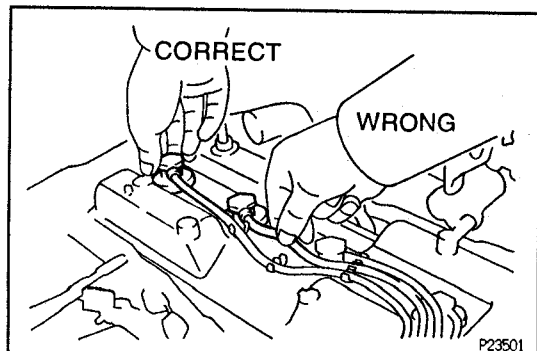
HIGH—TENSION CORDS INSPECTION

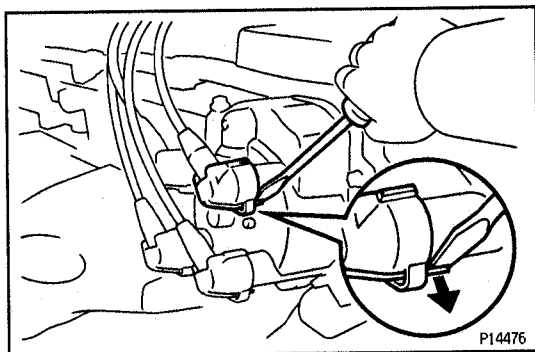
1. REMOVE AIR CLEANER CAP AND MAF METER ASSEMBLY
2. REMOVE INTAKE AIR CONNECTOR
3. DISCONNECT HIGH—TENSION CORDS FROM SPARK PLUGS

Disconnect the high—tension cords at the rubber boot.

DO NOT pull on the cords.

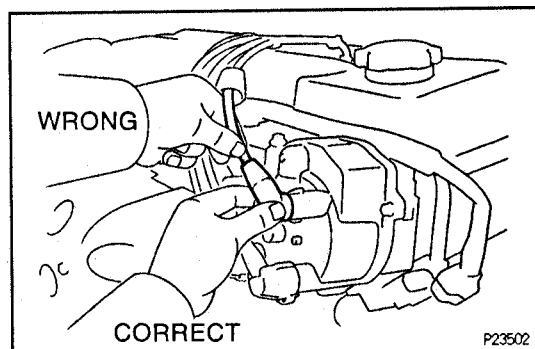
NOTICE: Pulling on or bending the cords may damage the conductor inside.





4. DISCONNECT HIGH—TENSION CORDS FROM DISTRIBUTOR CAP

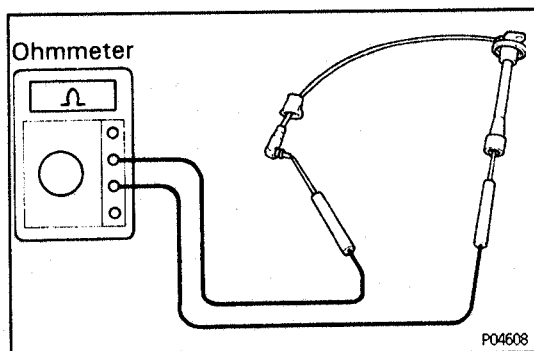
- (a) Using a screwdriver, lift up the lock claw and disconnect the holder from the distributor cap.



- (b) Disconnect the high—tension cord at the grommet. **DO NOT** pull on the cord.

NOTICE:

- Pulling on or bending the cords may damage the conductor inside.
- Do not wipe any of the oil from the grommet after the high—tension cord is disconnected.



5. INSPECT HIGH—TENSION CORD RESISTANCE

Using an ohmmeter, measure the resistance.

Maximum resistance:

25 kΩ per cord

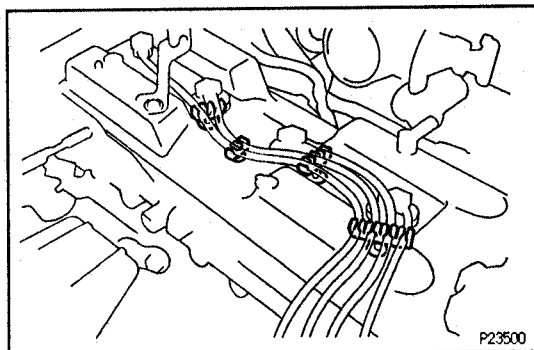
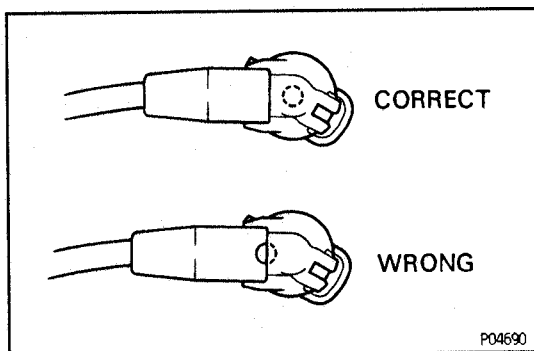
If the resistance is greater than the maximum, check the terminals. If necessary, replace the high—tension cord.

6. RECONNECT HIGH—TENSION CORDS TO DISTRIBUTOR CAP

- (a) Connect the high—tension cords to the distributor cap.

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.



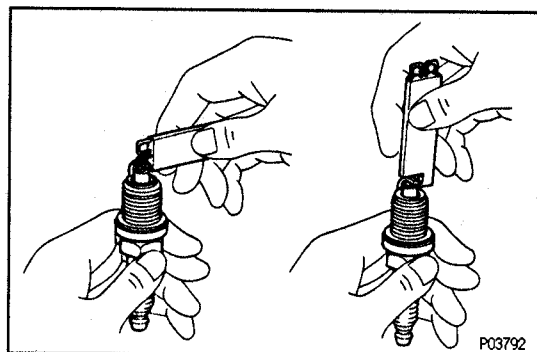
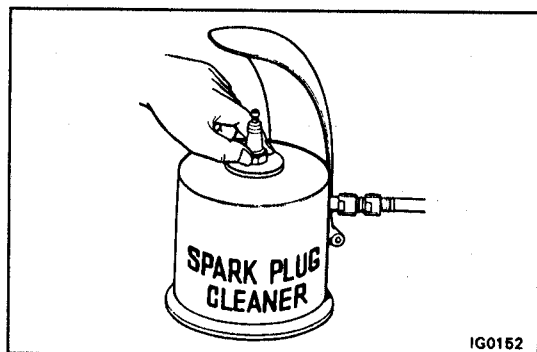
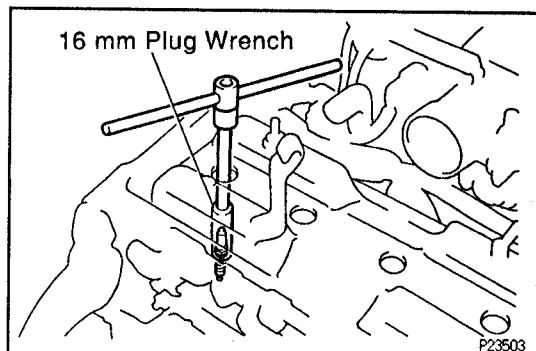
7. RECONNECT HIGH—TENSION CORDS TO SPARK PLUGS

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

8. REINSTALL INTAKE AIR CONNECTOR

9. REINSTALL AIR CLEANER CAP AND MAF METER ASSEMBLY

IG0J2-01



SPARK PLUGS INSPECTION

1. **DISCONNECT HIGH—TENSION CORDS FROM SPARK PLUGS**
(See steps 1 to 3 in high—tension cords inspection)
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, threads damage and insulator damage.
If abnormal, replace the plugs.
Recommended spark plugs:
ND: K16R—U
NGK: BKR5EYA
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: 20 N·m (200 kgf·cm, 14 ft·lbf)
7. **RECONNECT HIGH—TENSION CORDS TO SPARK PLUGS**
(See steps 7 to 9 in high—tension cords inspection)

IG0J3-01

DISTRIBUTOR 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 (122°F) and "Hot" is from 50°C (122°F) to 100°C (212°F).

1. **DISCONNECT DISTRIBUTOR CONNECTOR**
2. **REMOVE DISTRIBUTOR CAP AND ROTOR**
3. **REMOVE IGNITION COIL DUST COVER**

Ignition Coil

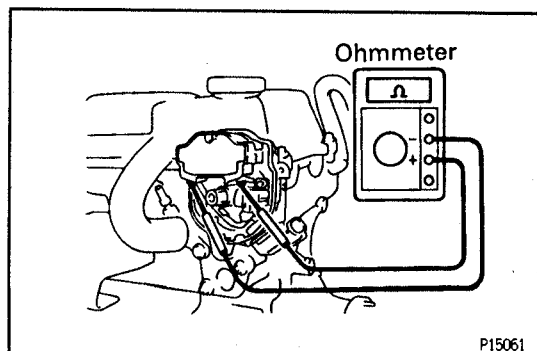
4. **INSPECT PRIMARY COIL RESISTANCE**

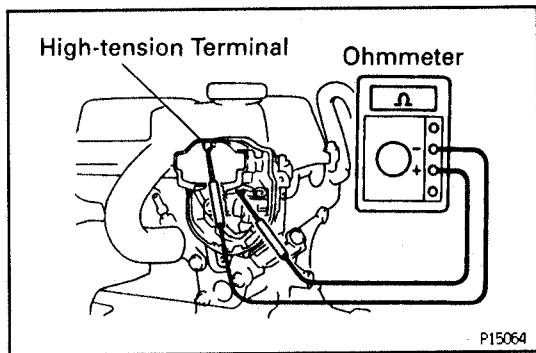
Using an ohmmeter, measure the resistance between the positive (+) and negative (—) terminals.

Primary coil resistance:

Cold: 0.36 — 0.55 Ω

Hot: 0.45 — 0.65 Ω





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

5. INSPECT SECONDARY COIL RESISTANCE

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

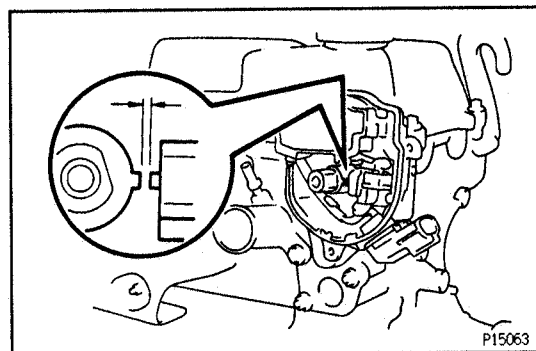
Secondary coil resistance:

Cold: 9.0 — 15.4 k Ω

Hot: 11.4 — 18.1 k Ω

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

Distributor



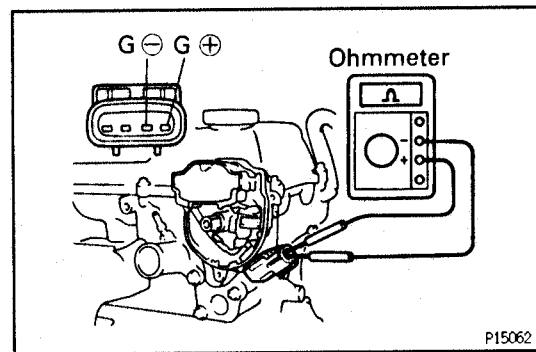
6. INSPECT AIR GAP

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.



7. INSPECT SIGNAL GENERATOR (PICKUP COIL) RESISTANCE

Using an ohmmeter, measure the resistance between the terminals.

Pickup coil resistance (G + and G -):

Cold: 185 — 275 Ω

Hot: 240 — 325 Ω

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

8. REINSTALL IGNITION COIL DUST COVER

9. REINSTALL ROTOR AND DISTRIBUTOR CAP

10. RECONNECT DISTRIBUTOR CONNECTOR

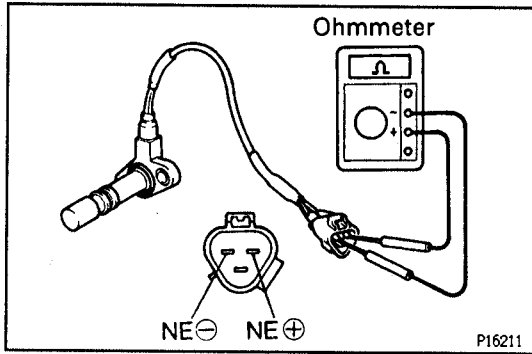
CRANKSHAFT POSITION SENSOR INSPECTION

10009-02

NOTICE: "Cold" and "Hot" in the following sentences express the temperature of the sensors 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. REMOVE CRANKSHAFT POSITION SENSOR

(See crankshaft position sensor removal in crankshaft position sensor)



2. INSPECT CRANKSHAFT POSITION SENSOR RESISTANCE

Using an ohmmeter, measure the resistance between the terminals.

Resistance (NE ⊕ and NE ⊖):

Cold: 1,630 — 2,740 Ω

Hot: 2,065 — 3,225 Ω

If the resistance is not as specified, replace the crankshaft position sensor.

3. REINSTALL CRANKSHAFT POSITION SENSOR IGNITER INSPECTION

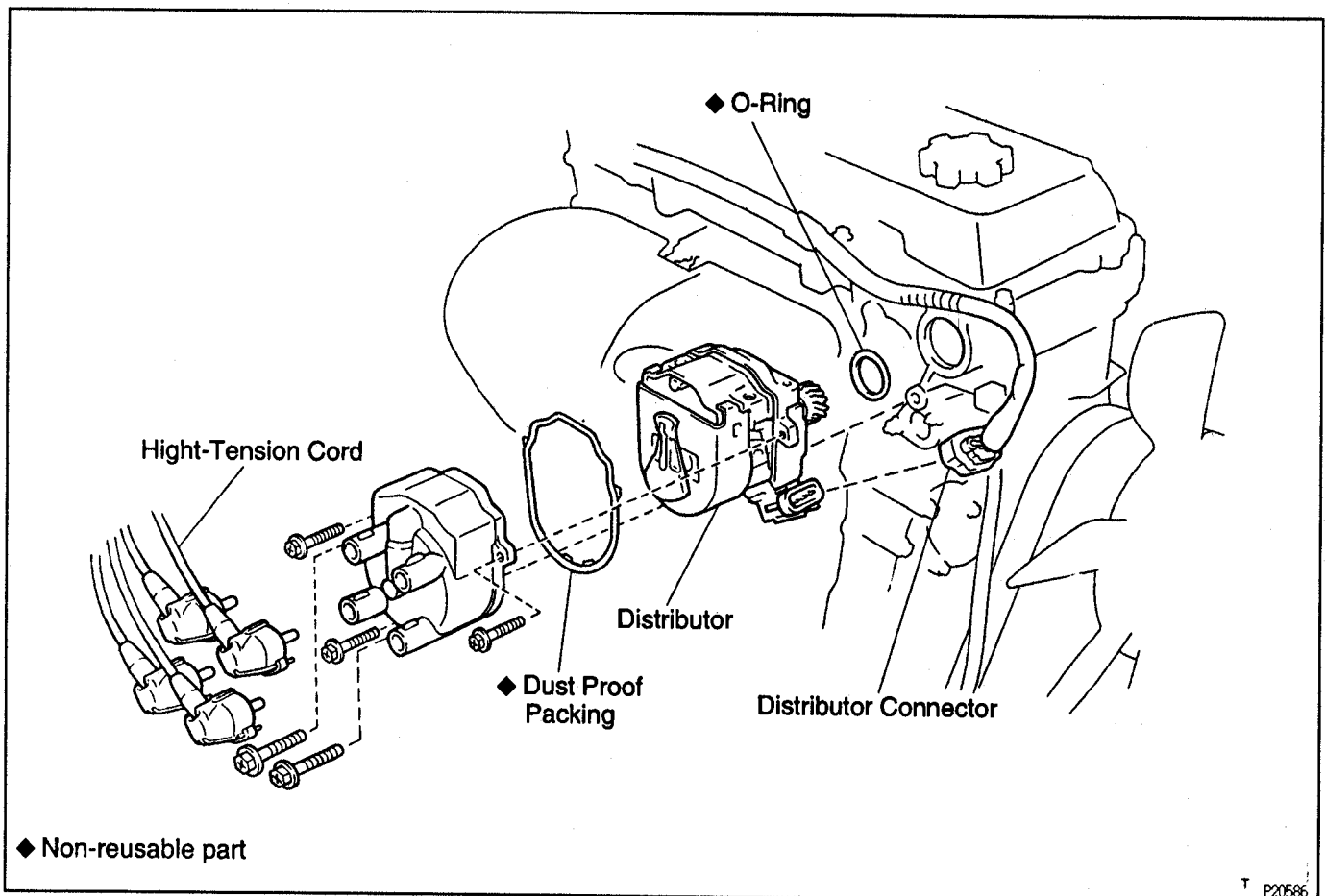
1000Z—0C

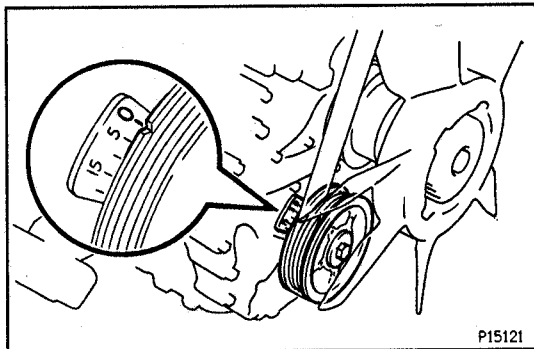
(See procedure Spark Test in on—vehicle inspection)

IG

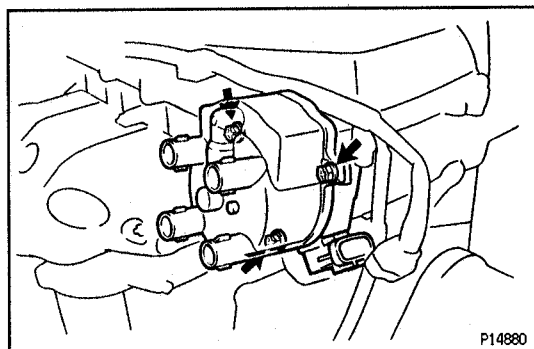
DISTRIBUTOR COMPONENTS FOR REMOVAL AND INSTALLATION

10030—06

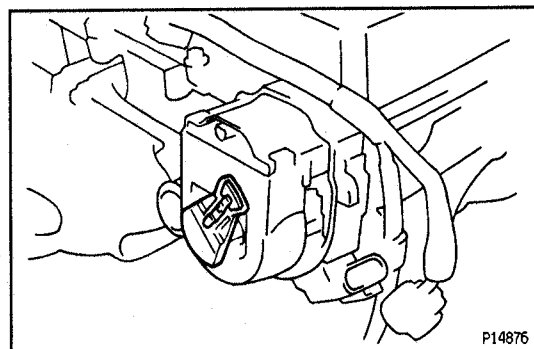


DISTRIBUTOR REMOVAL

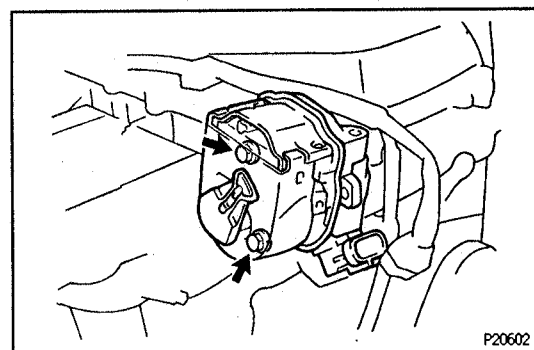
1. **DISCONNECT DISTRIBUTOR CONNECTOR**
2. **DISCONNECT HIGH—TENSION CORDS FROM DISTRIBUTOR CAP**
(See step 4 in high—tension cords inspection)
3. **SET NO.1 CYLINDER TO TDC/COMPRESSION**
 - (a) Turn the crankshaft pulley clockwise until the timing mark is aligned with "0" mark on the oil pump cover.



- (b) Remove the 3 bolts and distributor cap.



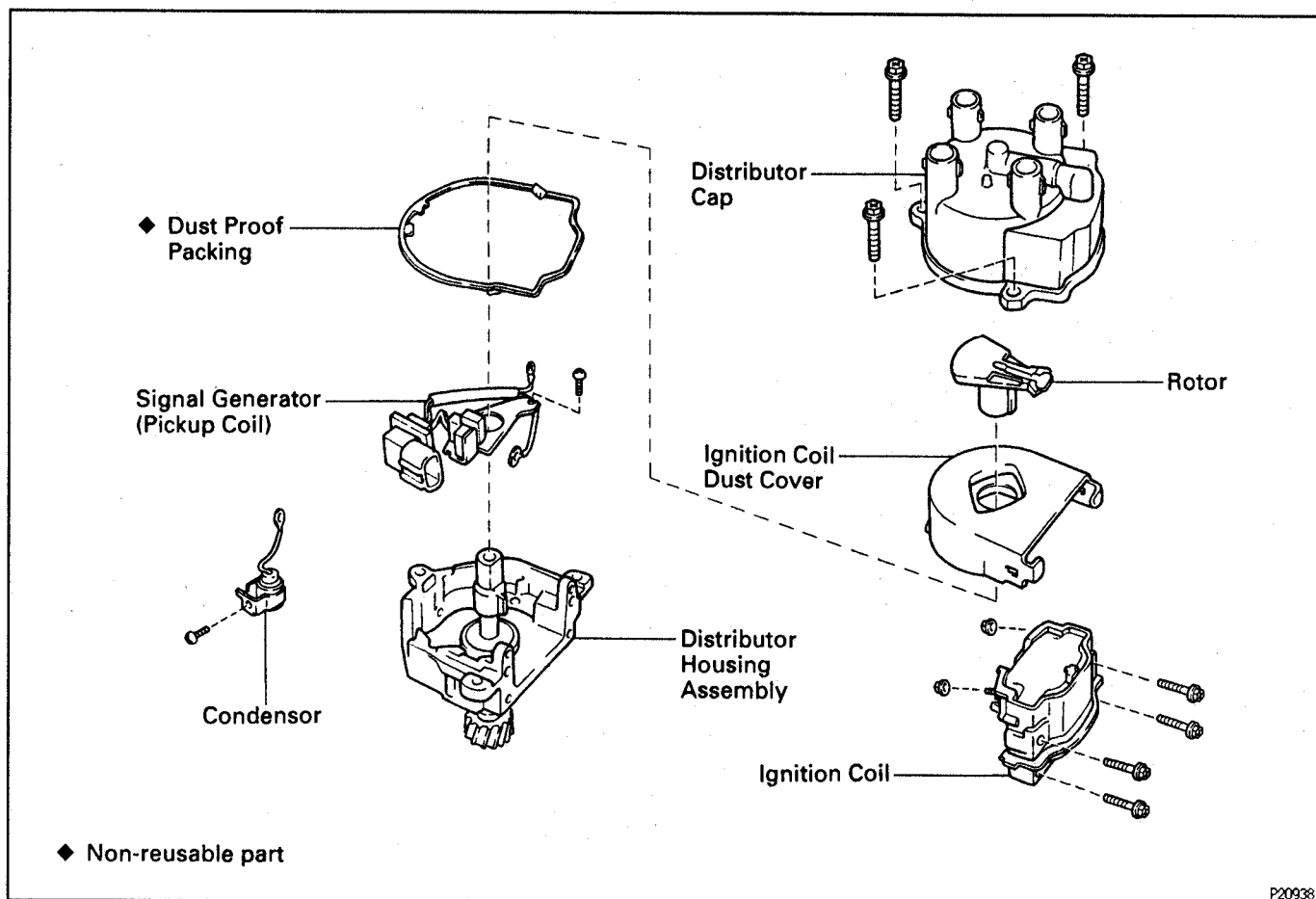
- (c) Check that the distributor rotor direction is as shown. If not, turn the crankshaft pulley one complete revolution.



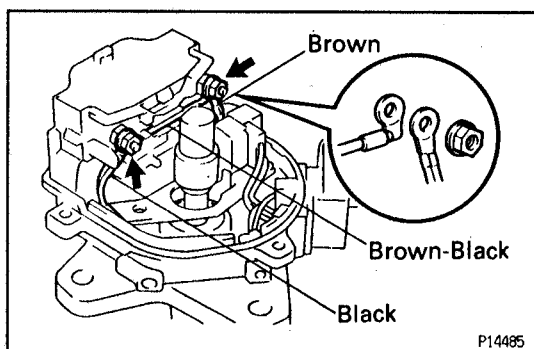
4. **REMOVE DISTRIBUTOR**
 - (a) Remove the 2 mounting bolts, and pull out the distributor.
 - (b) Remove the O—ring from the distributor housing.

COMPONENTS FOR DISASSEMBLY AND ASSEMBLY

10044-04



P20936

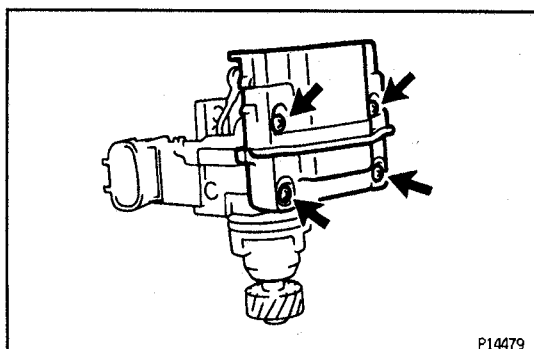


P14485

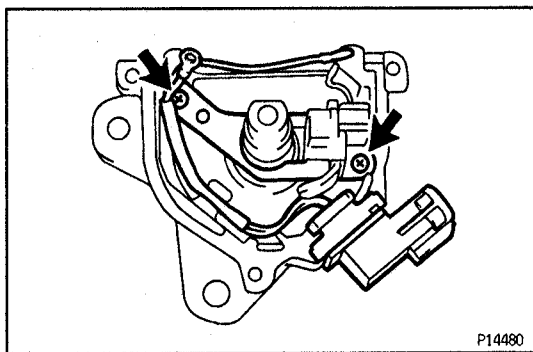
DISTRIBUTOR DISASSEMBLY

10034-01

1. REMOVE ROTOR
2. REMOVE IGNITION COIL DUST COVER
 - (a) Remove the dust cover.
 - (b) Remove the dust proof packing.
3. REMOVE IGNITION COIL
 - (a) Remove the 2 nuts, and disconnect the 3 wires from the ignition coil terminals.
 - (b) Remove the 4 screws and ignition coil.

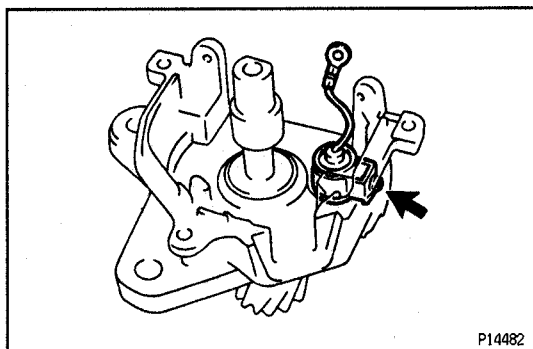


P14479



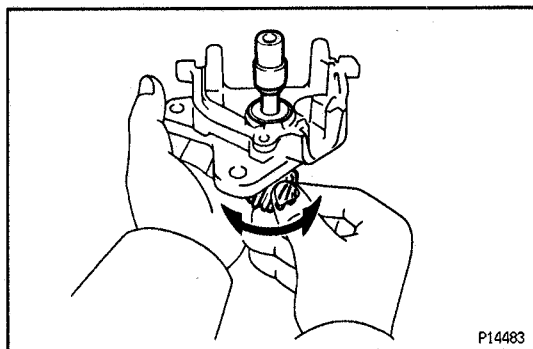
4. REMOVE SIGNAL GENERATOR (PICKUP COIL)

Remove the 2 screws and signal generator (pickup coil) from the distributor housing.



5. REMOVE CONDENSER

Remove the screw and condenser.



DISTRIBUTOR INSPECTION

19013-0P

INSPECT SHAFT

Turn the shaft and check that it is not rough or worn. If it feels rough or worn, replace the distributor housing assembly.

DISTRIBUTOR ASSEMBLY

190J8-01

1. INSTALL CONDENSER

Install the condenser with the screw.

2. INSTALL SIGNAL GENERATOR (PICKUP COIL)

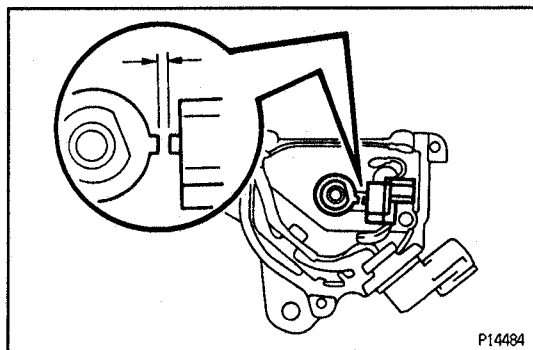
- (a) Install the signal generator (pickup coil) to the distributor housing.
- (b) Align the rotor tooth with the pickup coil, and temporarily install the 2 screws.

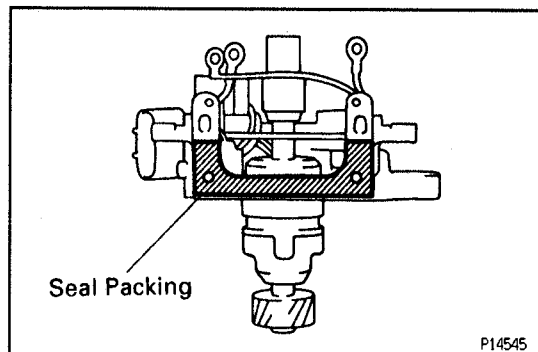
- (c) Using a thickness gauge, set the air gap and tighten the 2 screws.

Air gap:

0.2 — 0.4 mm (0.008 — 0.016 in.)

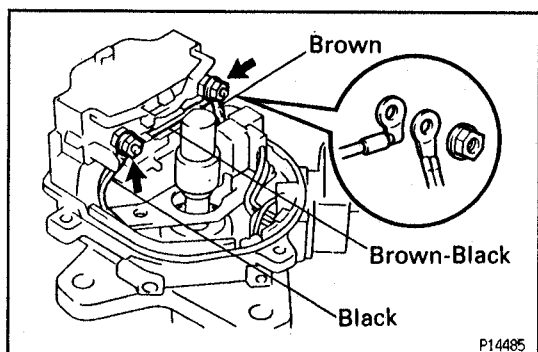
NOTICE: Be sure that the wires do not contact with the signal rotor.





3. INSTALL IGNITION COIL

- Remove any old packing (FIPG) material.
- Apply seal packing to the ignition coil installing surface of the housing as shown in the illustration.
Seal packing:
Part No. 08826—00080 or equivalent
- Install the ignition coil with the 4 screws.



- Connect the 3 wires to the ignition coil terminals with the 2 nuts as shown in the illustration.

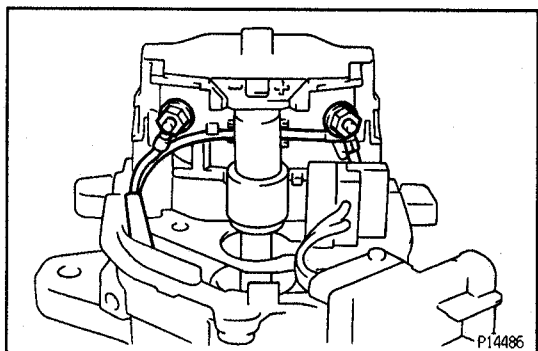
NOTICE:

- When connecting the wires to the ignition coil, insert the wire properly into the groove on the side of the ignition coil.
- Be sure the wires do not contact with signal rotor or distributor housing.

4. INSTALL IGNITION COIL DUST COVER

- Install a new dust proof packing to the distributor housing.
- Install the dust cover.

5. INSTALL ROTOR



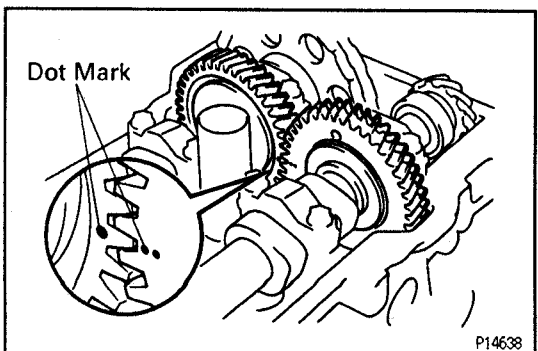
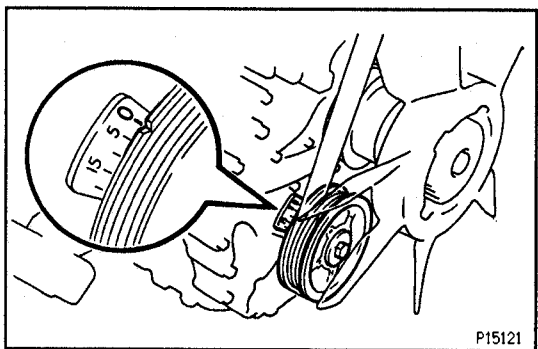
DISTRIBUTOR INSTALLATION

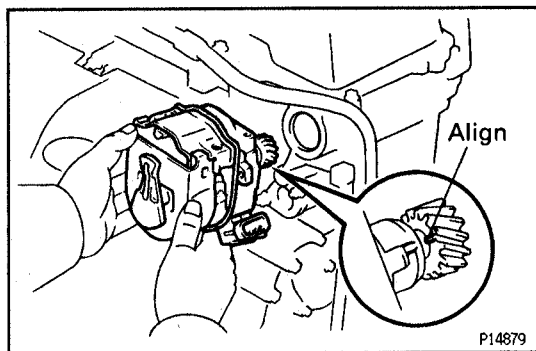
IG0J8-01

1. CHECK NO.1 CYLINDER TO TDC/COMPRESSION

If necessary, remove the cylinder head cover, and check the following conditions:

- Turn the crankshaft pulley clockwise and align its groove with the timing mark "0" of the oil pump cover.
 - Verify that the timing marks with 1 and 2 dots are in straight line on the cylinder head surface as shown in the illustration.
- If not, turn the crankshaft 1 revolution (360°) and align the mark as above.





2. INSTALL DISTRIBUTOR

- (a) Install a new O—ring to the distributor.
HINT: Always use a new O—ring when installing the distributor.
- (b) Align the protrusion of the distributor housing with the groove on the driven gear.
- (c) Apply a light coat of engine oil on the O—ring.
- (d) Install the distributor with 2 bolts.
Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

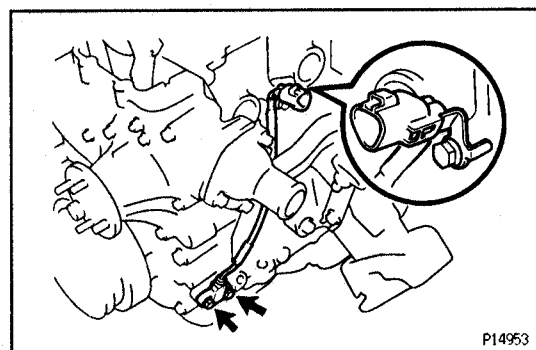
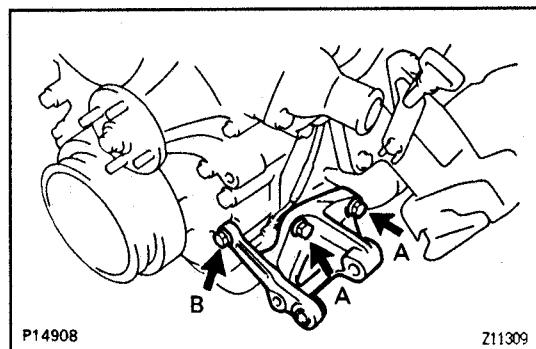
3. INSTALL DISTRIBUTOR CAP

4. RECONNECT HIGH—TENSION CORDS TO DISTRIBUTOR CAP

5. CONNECT DISTRIBUTOR CONNECTOR

6. CHECK IGNITION TIMING

(See ignition timing inspection in Engine Mechanical)



CRANKSHAFT POSITION SENSOR CRANKSHAFT POSITION SENSOR REMOVAL

100GD—02

1. REMOVE ENGINE UNDER COVER
2. REMOVE GENERATOR
(See generator removal in Charging System)
3. REMOVE GENERATOR BRACKET
Remove the 3 bolts and bracket.

Torque:

Bolt A: 74.5 N·m (760 kgf·cm, 55 ft·lbf)

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

4. DISCONNECT CRANKSHAFT POSITION SENSOR CONNECTOR

5. REMOVE CRANKSHAFT POSITION SENSOR

- (a) Remove the 2 bolts and crankshaft position sensor.
Torque: 8.5 N·m (85 kgf·cm, 74 in·lbf)
- (b) Remove the O—ring.

INSTALLATION HINT:

- Always use a new O—ring when installing the crankshaft position sensor.
- Apply a light coat of engine oil on the O—ring.

CRANKSHAFT POSITION SENSOR INSTALLATION

100J7—01

Installation is in the reverse order of removal.

SERVICE SPECIFICATIONS

SERVICE DATA

IG05M-07

Firing order	—	1 — 3 — 4 — 2
High—tension cord	Resistance Maximum	25 k Ω per cord
Spark plug	Recommended spark plug Recommended spark plug Correct electrode gap	ND NGK 0.8 mm (0.031 in.)
Ignition coil	Primary coil resistance Hot Secondary coil resistance Cold Hot	0.36 — 0.55 Ω 0.45 — 0.65 Ω 9.0 — 15.4 k Ω 11.4 — 18.1 k Ω
Distributor	Air gap Signal generator (pickup coil) resistance at cold G $\oplus$ — G $\ominus$ at hot G $\oplus$ — G $\ominus$	0.2 — 0.4 mm (0.008 — 0.0016 in.) 185 — 275 Ω 240 — 325 Ω
Crankshaft position sensor	Resistance at cold NE $\oplus$ — NE $\ominus$ at hot NE $\oplus$ — NE $\ominus$	1,630 — 2,740 Ω 2,065 — 3,225 Ω

IG

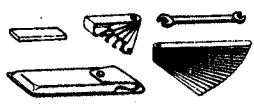
IG017-0F

TORQUE SPECIFICATIONS

Part tightened	N-m	kgf-cm	ft-lbf
Spark plug x Cylinder head	20	200	14
Distributor x Cylinder head	19	195	14
Crankshaft position sensor x Timing chain cover	8.5	85	74 in.-lbf
Generator bracket x Cylinder block	74.5	760	55
Generator bracket x Timing chain cover	18	180	13

(5VZ—FE)**PREPARATION****RECOMMENDED TOOLS**

1002N—0H

	09082—00050 TOYOTA Electrical Tester Set.	
	09200—00010 Engine Adjust Kit .	

IG

EQUIPMENT

1002P—0H

Megger insulation resistance meter	Spark plug
Spark plug cleaner	

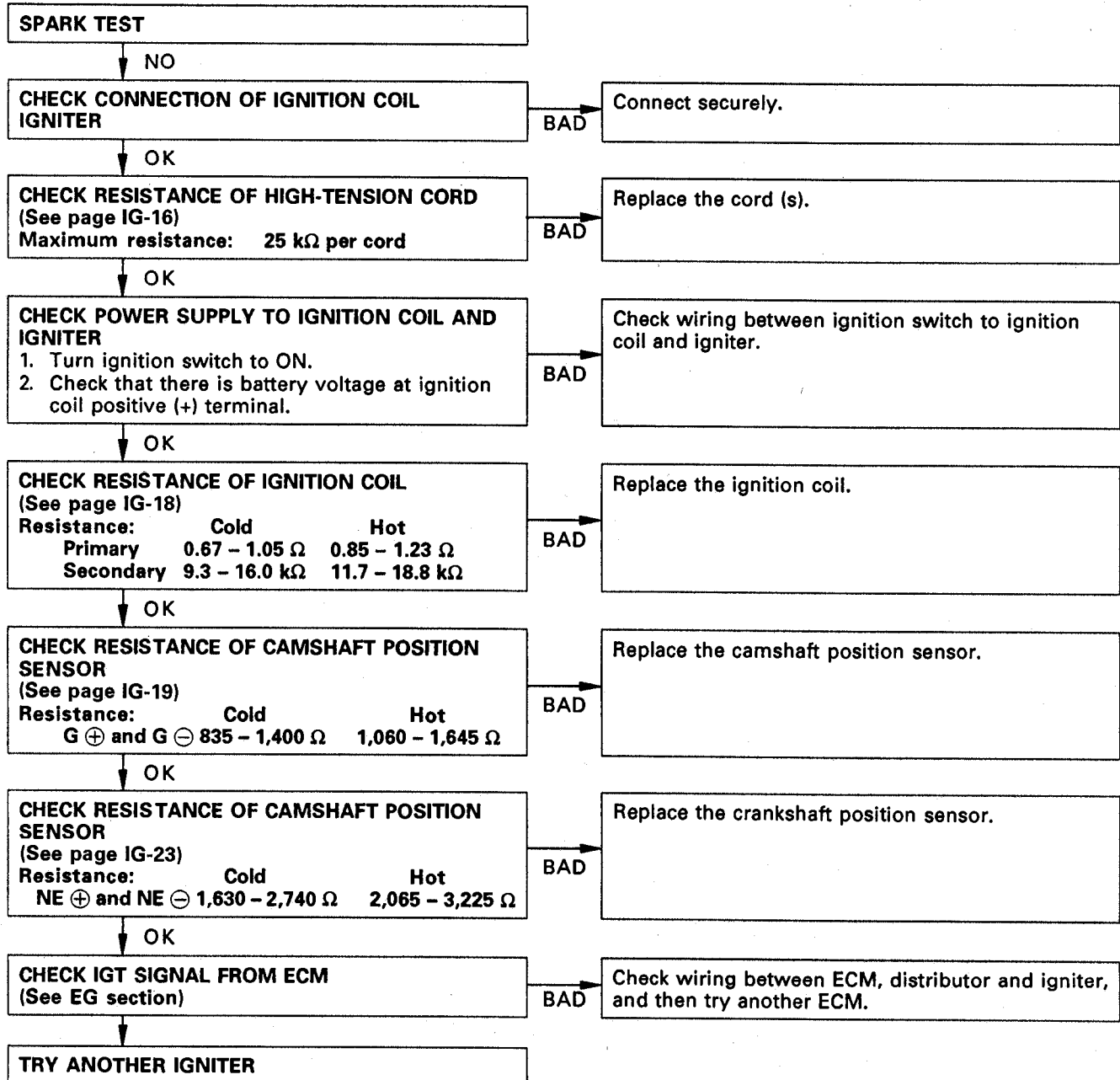
**ON—VEHICLE INSPECTION
SPARK TEST**

1000E—03

CHECK THAT SPARK OCCURS

- (a) Disconnect high—tension cords from spark plug.
 - (b) Remove the spark plug.
 - (c) Install the spark plug to each high—tension cord.
 - (d) Ground the spark plug.
 - (e) Check if spark occurs while engine is being cranked.
- NOTICE:** To prevent excess fuel being injected from the injectors during this test, do not crank the engine for more 5 — 10 seconds at a time.

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



V06648

IG018-01

HIGH—TENSION CORDS INSPECTION

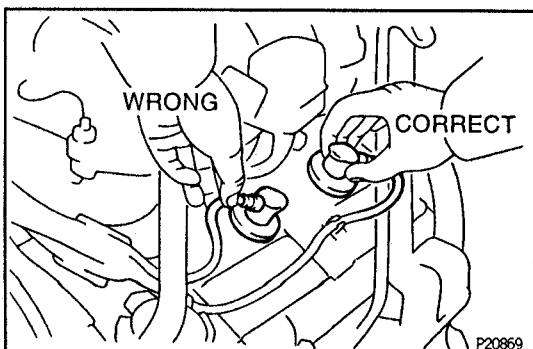
1. REMOVE AIR CLEANER CAP AND MAF METER ASSEMBLY

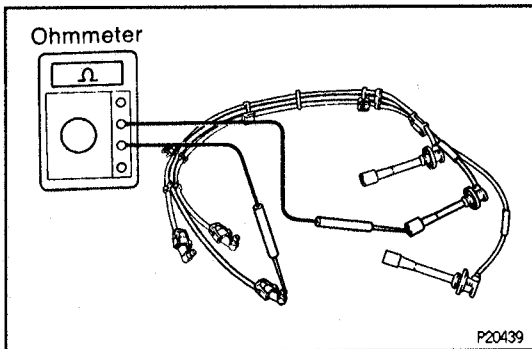
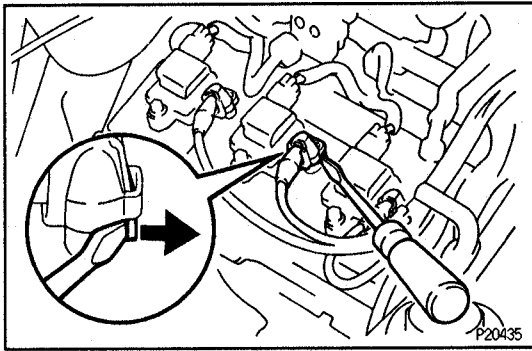
2. DISCONNECT HIGH—TENSION CORDS FROM SPARK PLUGS

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.





3. DISCONNECT HIGH-TENSION CORDS FROM IGNITION COILS

- (a) Using a screwdriver, lift up the lock claw and disconnect the holder from the ignition coils.
- (b) Disconnect the high—tension cord at the grommet. **DO NOT** pull on the cord.

NOTICE:

- **Pulling on or bending the cords may damage the conductor inside.**
- **Do not wipe any of the oil from the grommet after the high—tension cord is disconnected.**

4. INSPECT HIGH-TENSION CORD RESISTANCE

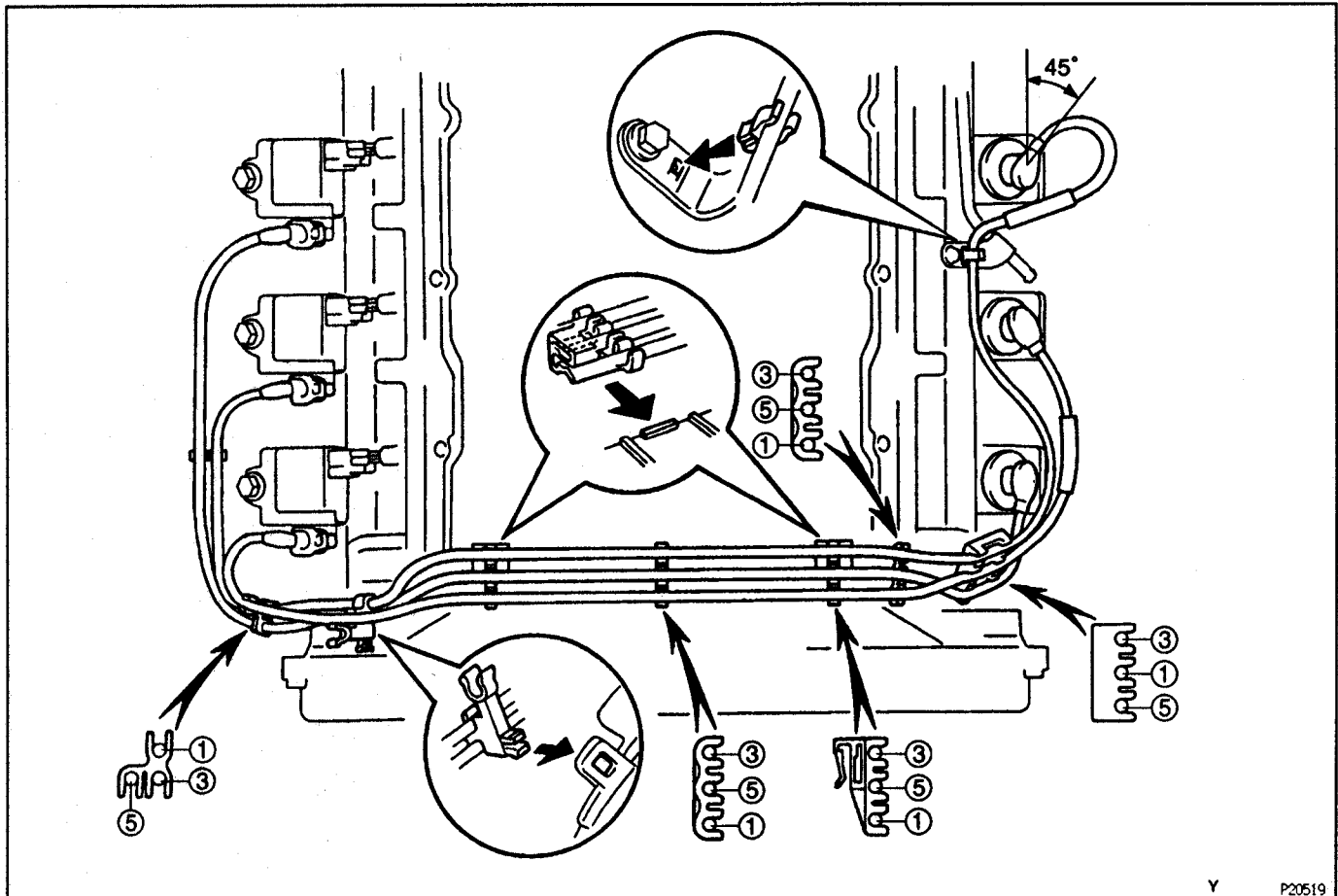
Using an ohmmeter, measure the resistance.

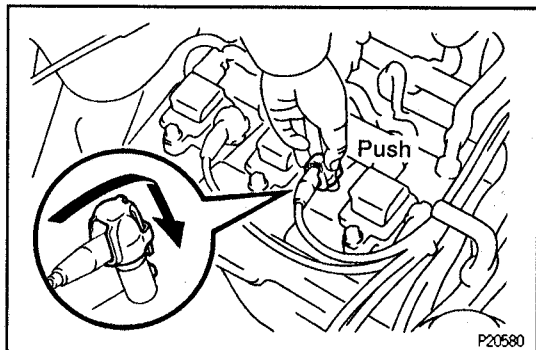
Maximum resistance:

25 kΩ per cord

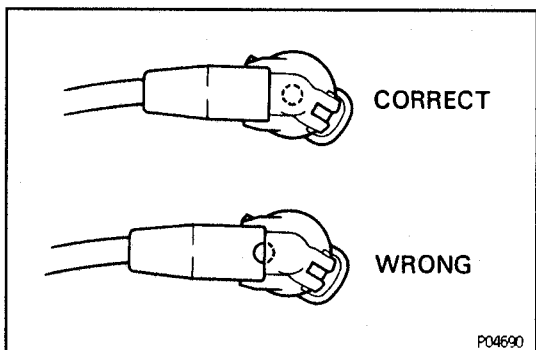
If the resistance is greater than the maximum, check the terminals. If necessary, replace the high-tension cord.

5. RECONNECT HIGH-TENSION CORDS TO IGNITION COILS





- (a) Assemble the holder and grommet.
- (b) Align the spline of the ignition coil with the spline of the holder, and push in the cord.

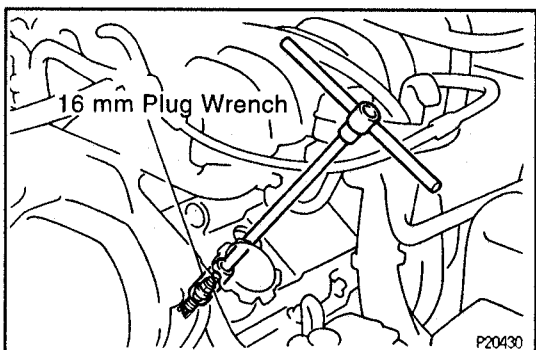


NOTICE: Check that the holder is correctly installed to the grommet and distributor cap as shown in the illustration.

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

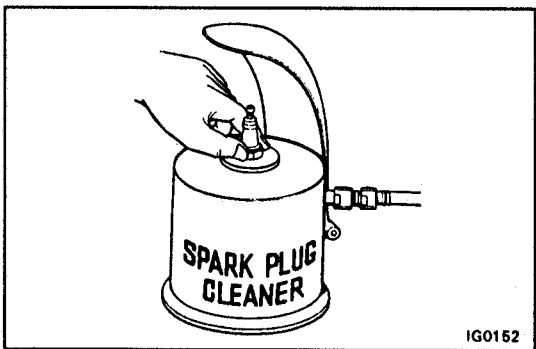
6. RECONNECT HIGH—TENSION CORDS TO SPARK PLUGS

7. REINSTALL AIR CLEANER CAP AND MAF METER ASSEMBLY



SPARK PLUGS INSPECTION

1. **DISCONNECT HIGH—TENSION CORDS**
(See steps 1 to 3 in high—tension cords inspection)
2. **REMOVE IGNITION COILS**
(See step 3 in ignition coils removal)
3. **REMOVE SPARK PLUGS**
Using a 16 mm plug wrench, remove the 6 spark plugs from the RH and LH cylinder heads.



4. CLEAN SPARK PLUGS

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

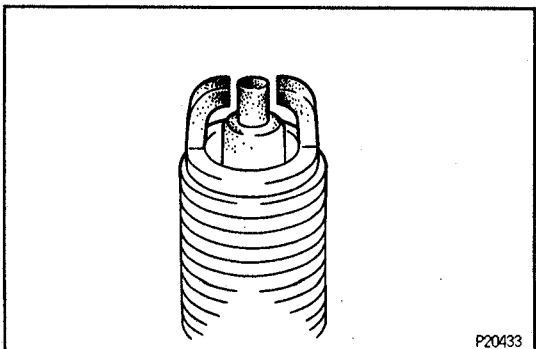
Air pressure:

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.



5. VISUALLY INSPECT SPARK PLUGS

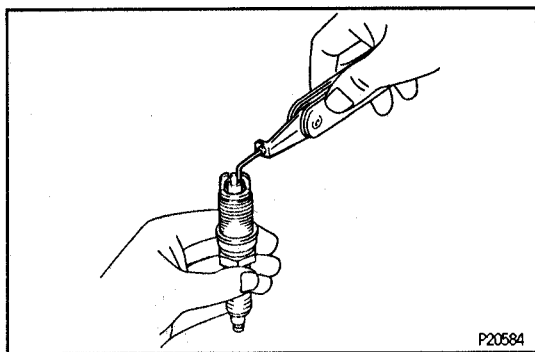
Check the spark plug for thread damage and insulator damage.

If abnormal, replace the spark plug.

Recommended spark plug:

ND: K16TR11

NGK: BKR5EKB—11



6. ADJUST ELECTRODE GAP

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

Correct electrode gap: 1.1 mm (0.043 in.)

7. REINSTALL SPARK PLUGS

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

8. REINSTALL IGNITION COILS

(See ignition coils installation)

9. RECONNECT HIGH—TENSION CORDS

(See steps 5 to 7 in high—tension cords inspection)

100J9-01

IGNITION COIL INSPECTION

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. REMOVE AIR CLEANER CAP AND MAF METER ASSEMBLY

2. DISCONNECT HIGH—TENSION CORDS AND IGNITION COIL CONNECTORS FROM IGNITION COILS

3. INSPECT PRIMARY COIL RESISTANCE

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

Primary coil resistance :

Cold: 0.67 — 1.05 Ω

Hot: 0.85 — 1.23 Ω

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

4. REMOVE IGNITION COILS

5. INSPECT SECONDARY COIL RESISTANCE

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

Secondary coil resistance:

Cold: 9.3 — 16.0 k Ω

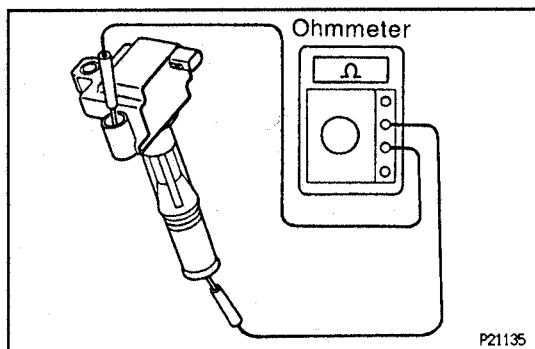
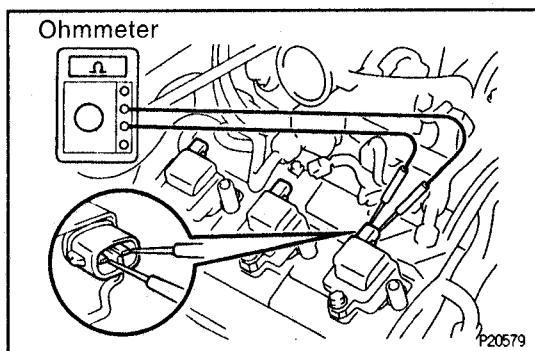
Hot: 11.7 — 18.8 k Ω

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

6. REINSTALL IGNITION COILS

7. RECONNECT IGNITION COIL CONNECTORS AND HIGH—TENSION CORDS

8. REINSTALL AIR CLEANER CAP AND MAF METER ASSEMBLY



CAMSHAFT POSITION SENSOR INSPECTION

NOTICE: "Cold" and "Hot" in these sentences express the temperature of the sensors 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. **DISCONNECT CAMSHAFT POSITION SENSOR CONNECTOR**
2. **INSPECT CAMSHAFT POSITION SENSOR RESISTANCE**

Using an ohmmeter, measure the resistance between terminals.

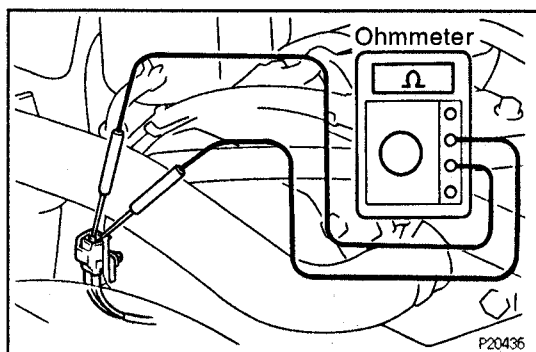
Resistance:

Cold: $835 - 1,400\ \Omega$

Hot: $1,060 - 1,645\ \Omega$

If the resistance is not as specified, replace the camshaft position sensor.

3. **RECONNECT CAMSHAFT POSITION SENSOR CONNECTOR**



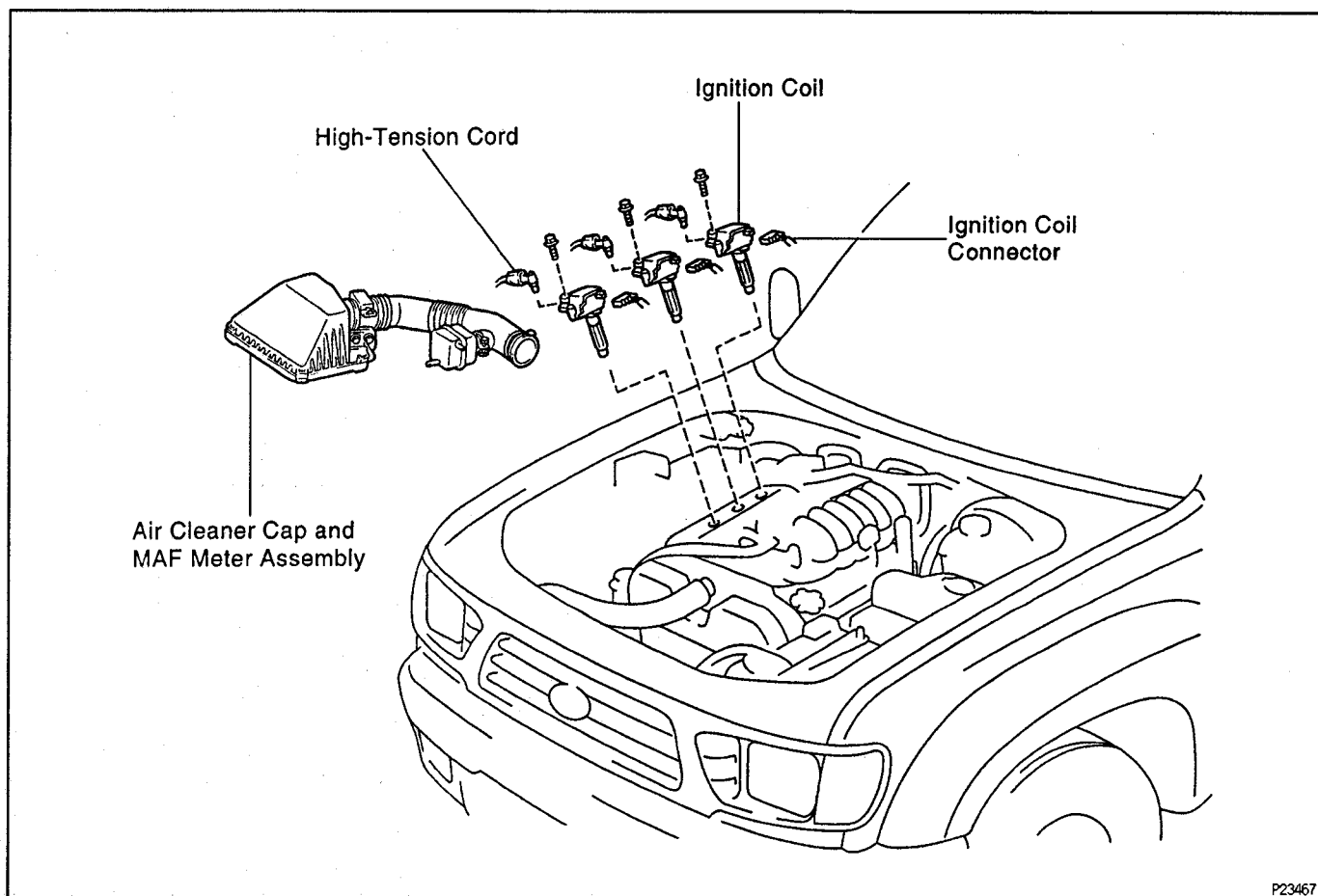
IGNITER INSPECTION

(See procedure Spark Test in on—vehicle inspection)

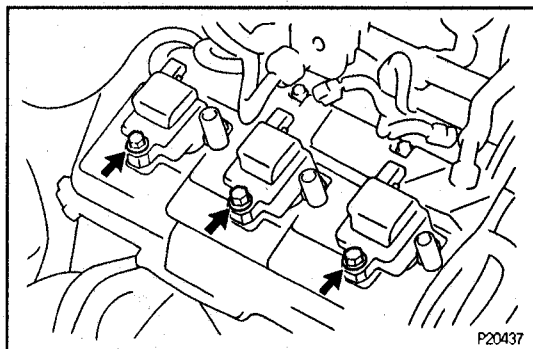
IGNITION COIL COMPONENTS FOR REMOVAL AND INSTALLATION

100GJ-03

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IGNITION COILS REMOVAL

100GK-02

1. REMOVE AIR CLEANER CAP AND MAF METER ASSEMBLY
 2. DISCONNECT HIGH—TENSION CORDS FROM IGNITION COILS
(See steps 1 to 3 in high—tension cords inspection)
 3. REMOVE IGNITION COILS
 - (a) Disconnect the 3 connectors from the ignition coils.
 - (b) Remove the 3 bolts and 3 ignition coils from the LH cylinder head.
- Torque: 7.8 N·m (80 kgf·cm, 69 in.-lbf)**
HINT: Arrange the ignition coils in correct order.

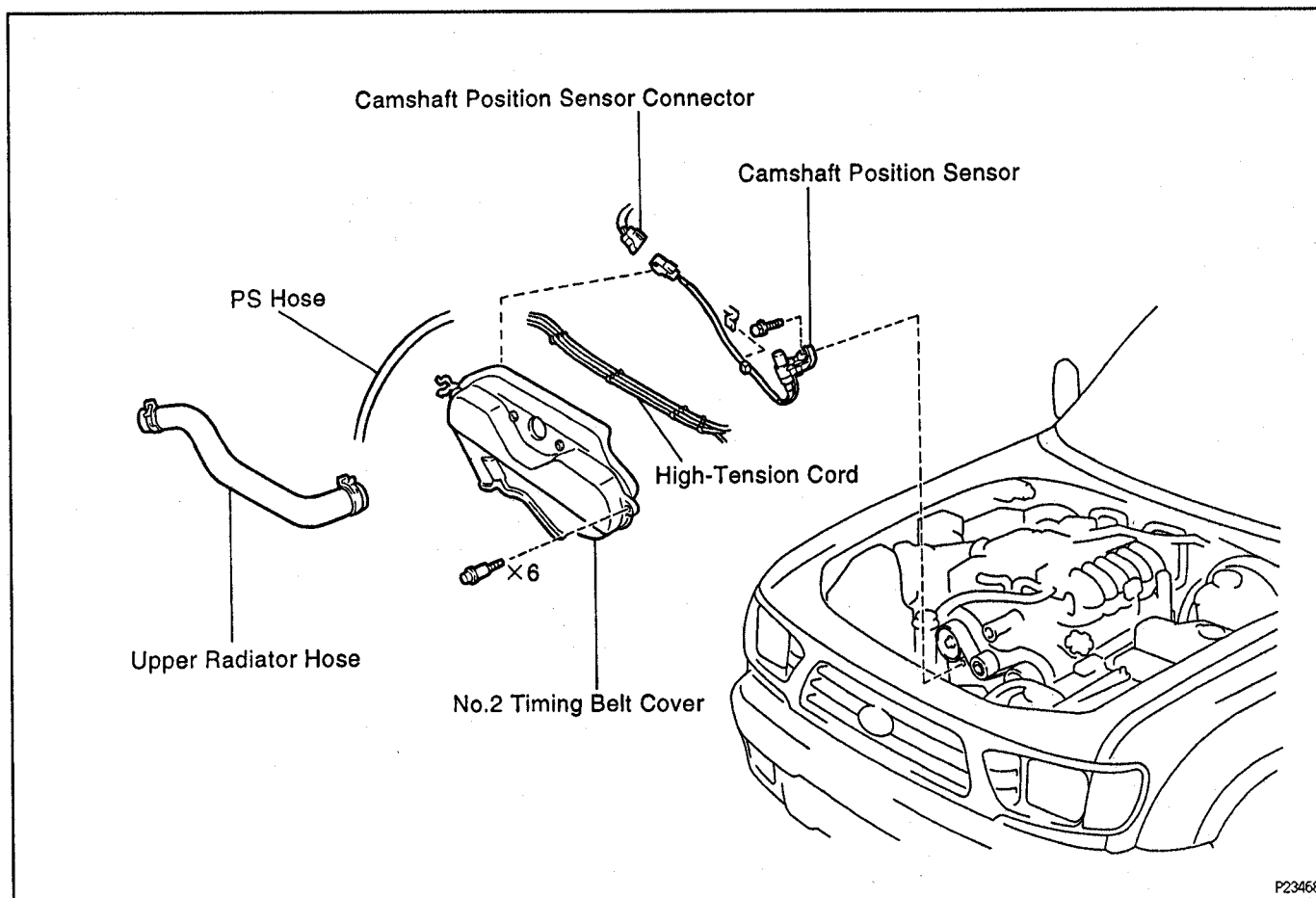
IGNITION COILS INSTALLATION

100JG-01

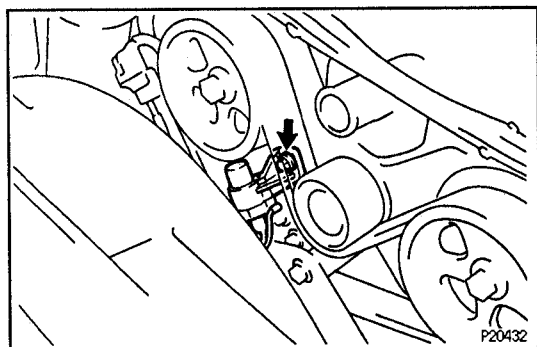
Installation is in the reverse order of removal.

CAMSHAFT POSITION SENSOR COMPONENTS FOR REMOVAL AND INSTALLATION

100BY—0E



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CAMSHAFT POSITION SENSOR REMOVAL

100GM—03

1. REMOVE NO.2 TIMING BELT COVER
(See steps 2, 3, 12 and 13 timing belt removal in Engine Mechanical)
2. REMOVE CAMSHAFT POSITION SENSOR
 - (a) Disconnect the camshaft position sensor connector.
 - (b) Remove the bolts and camshaft position sensor.
Torque: 7.8 N·m (80 kgf·cm, 69 in.-lbf)

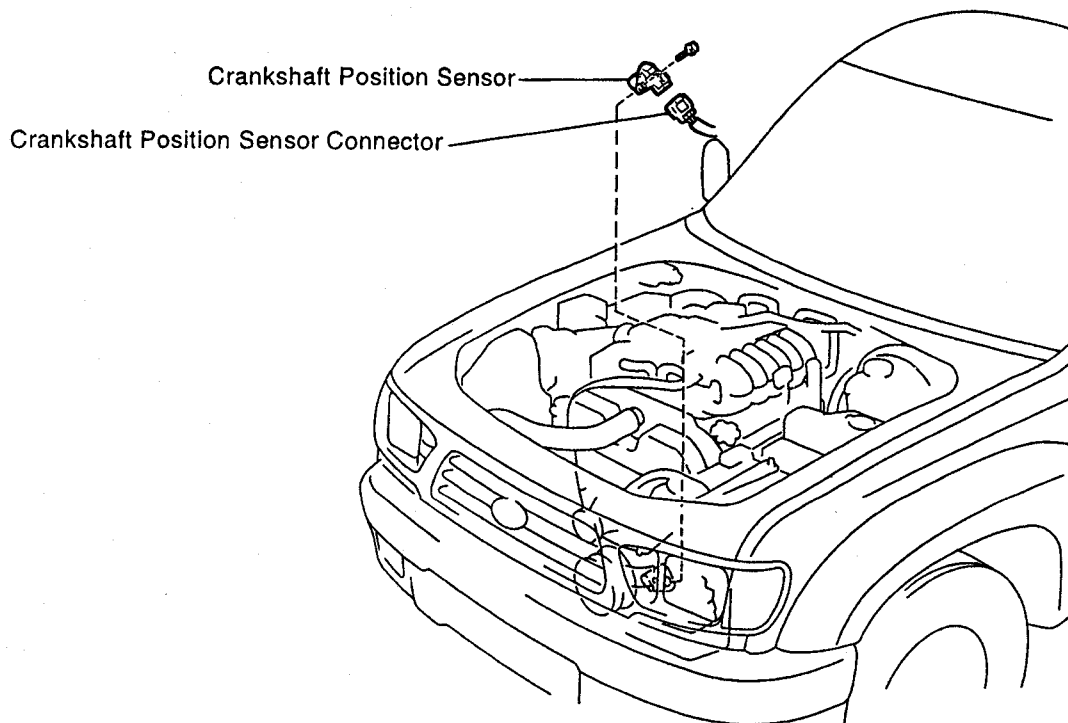
CAMSHAFT POSITION SENSOR INSTALLATION

100JD—01

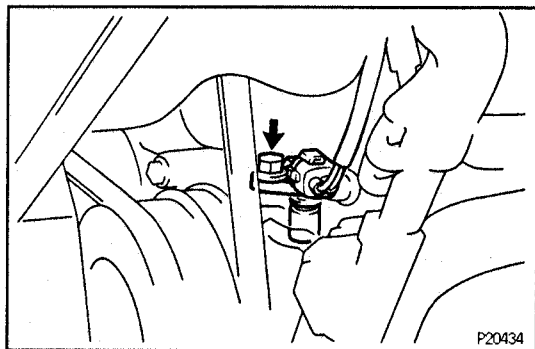
Installation is in the reverse order of removal.

CRANKSHAFT POSITION SENSOR COMPONENTS FOR REMOVAL AND INSTALLATION

1005W-08



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CRANKSHAFT POSITION SENSOR REMOVAL

1006N-02

REMOVE CRANKSHAFT POSITION SENSOR

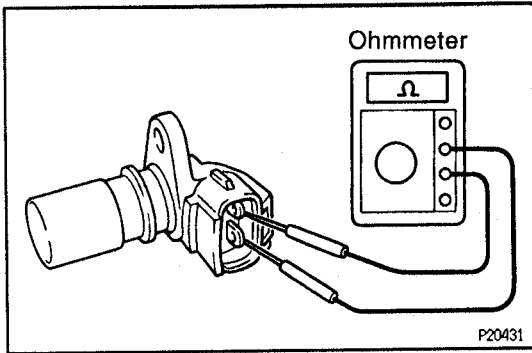
- Disconnect the crankshaft position sensor connector.
- Remove the bolt crankshaft position sensor.

Torque: 7.8 N·m (80 kgf·cm, 69 in.-lbf)

1006P-02

CRANKSHAFT POSITION SENSOR INSPECTION

NOTICE: "Cold" and "Hot" in these sentences express the temperature of the sensors 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).



INSPECT CRANKSHAFT POSITION SENSOR RESISTANCE

Using an ohmmeter, measure the resistance between terminals.

Resistance:

Cold: 1,630 — 2,740 Ω

Hot: 2,065 — 3,225 Ω

If the resistance is not as specified, replace the crankshaft position sensor.

CRANKSHAFT POSITION SENSOR INSTALLATION

Installation is in the reverse order of removal.

SERVICE SPECIFICATIONS

SERVICE DATA

High—tension cord	Resistance	Maximum	25 k Ω per cord
Spark plug	Recommended spark plug	ND	K16TR11
	Correct electrode gap	NGK	BKR5EKB—11
			1.1 mm (0.043 in.)
Ignition coil	Resistance	Primary	at cold 0.67 — 1.05 Ω at hot 0.85 — 1.23 Ω
		Secondary	at cold 9.3 — 16.0 k Ω at hot 11.7 — 18.8 k Ω
Camshaft position sensor	Resistance	at cold	835 — 1,400 Ω
		at hot	1,060 — 1,645 Ω
Crankshaft position sensor	Resistance	at cold	1,630 — 2,740 Ω
		at hot	2,065 — 3,225 Ω

TORQUE SPECIFICATIONS

Part tightened	N·m	kgf·cm	ft·lbf
Spark plug x Cylinder head	18	180	13
Ignition coil x Cylinder head	7.8	80	69 in·lbf
Camshaft position sensor x Cylinder head	7.8	80	69 in·lbf
Crankshaft position sensor x Oil pump	7.8	80	69 in·lbf

IG