

# DAIHATSU

## L500, L501

ED-10, ED-20, EF-EL

### IGNITION SYSTEM

IG

|                                        |       |
|----------------------------------------|-------|
| OUTLINE OF IGNITION SYSTEM .....       | IG- 2 |
| IN-VEHICLE INSPECTIONS .....           | IG- 3 |
| DISTRIBUTOR [ED-10 Engine] .....       | IG-14 |
| DISTRIBUTOR [ED-20, EF-EL Engine] .... | IG-24 |
| INSTALLATION OF DISTRIBUTOR .....      | IG-27 |
| SERVICE SPECIFICATIONS .....           | IG-29 |
| TIGHTENING TORQUE .....                | IG-29 |
| SSTs .....                             | IG-29 |

#### NOTE:

The contents described in the service manual have been explained in the MA section. Please refer to the MA section, as required.

LIG00001-00000

**NO. 9198-LE**

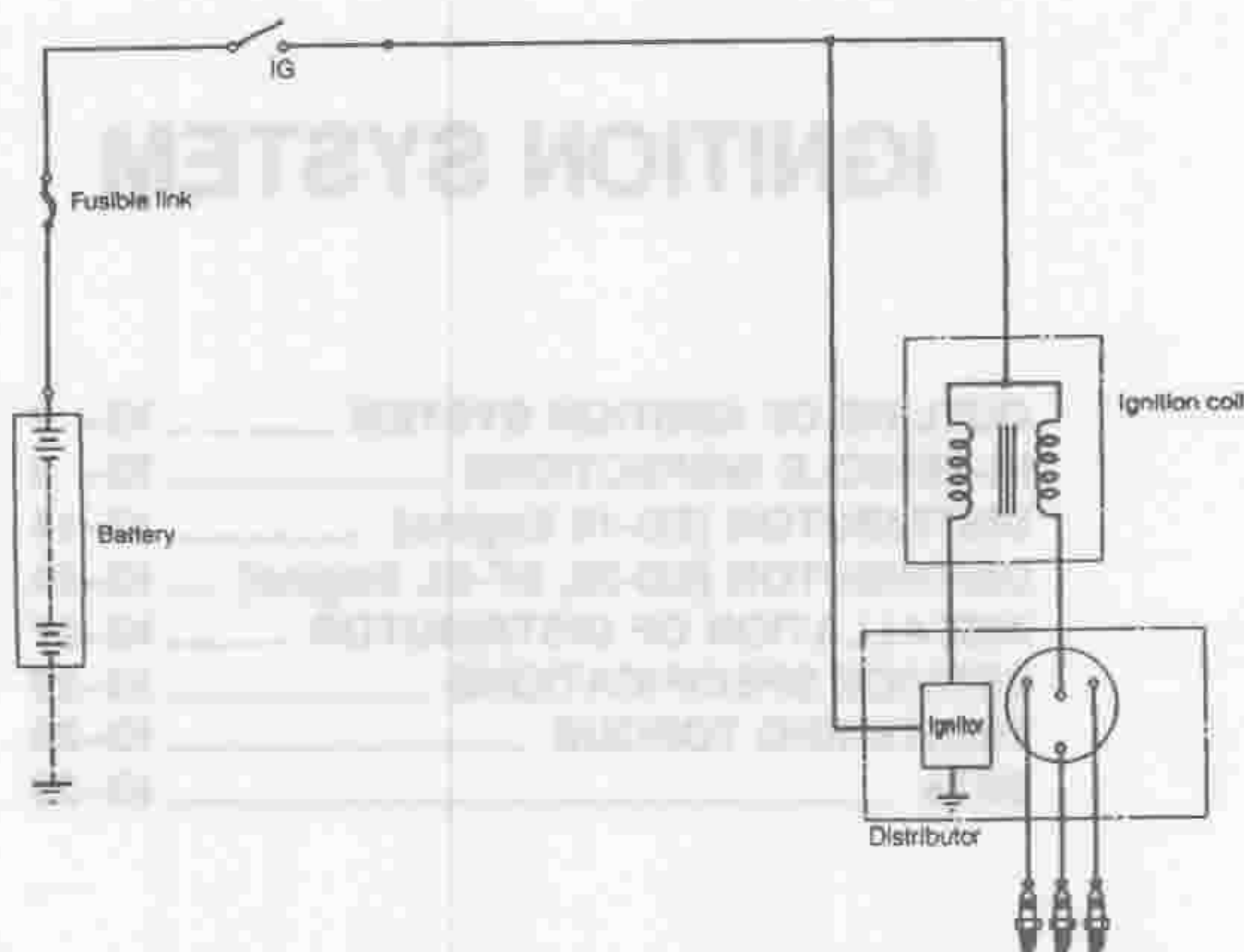
## OUTLINE OF IGNITION SYSTEM

On L500, L501 series vehicles, the ignition system divides into two kinds, depending upon engine types. As regards the ED-10 engine (General specifications), the fully-transistorized ignition system is available. On the other hand, the ED-20 engine (European specifications) and EF-EL engine (Australian specifications) are provided with ESA (Electronically spark advance) system in line with employment of the EFI system. This system assures that an optimum ignition timing advance may be obtained in accordance with the engine conditions.

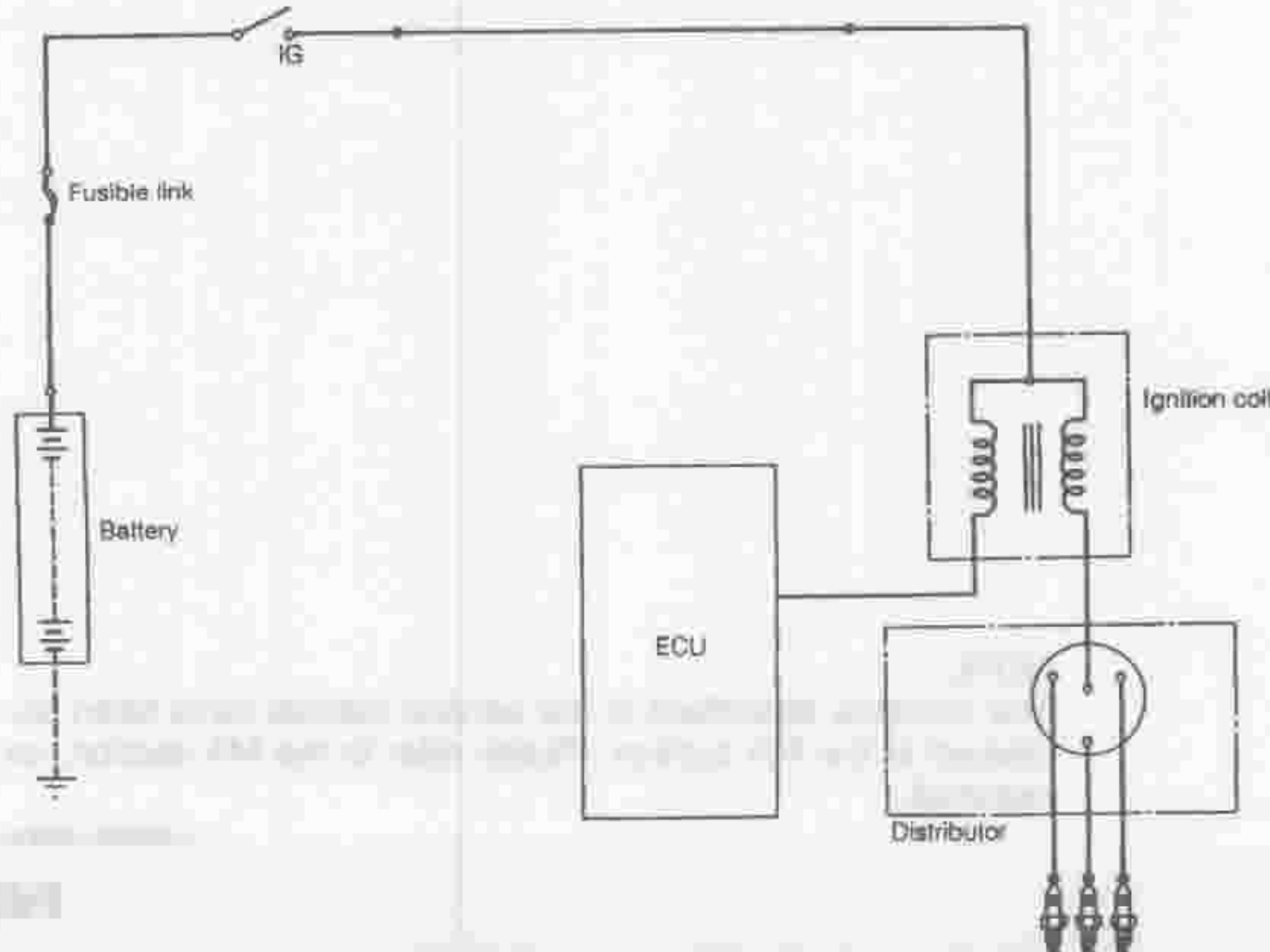
In the ESA system, the ignition timing is controlled by the ECU. The ignition timing is corrected, based on factors inputted to the ECU, such as water temperature, atmospheric pressure, intake manifold negative pressure and engine speed.

Moreover, in order to prevent troubles caused by disengaged connector or leak, modifications have been made so that the ignition coil now incorporates a waterproof connector at the primary side; a lock connector at the secondary side.

[ED-10 Engine]



[ED-20, EF-EL Engine]



## IN-VEHICLE INSPECTIONS

### INSPECTION OF IGNITION TIMING

(Refer to the MA section.)

#### SPARK TEST

(Check to see if spark occurs.)

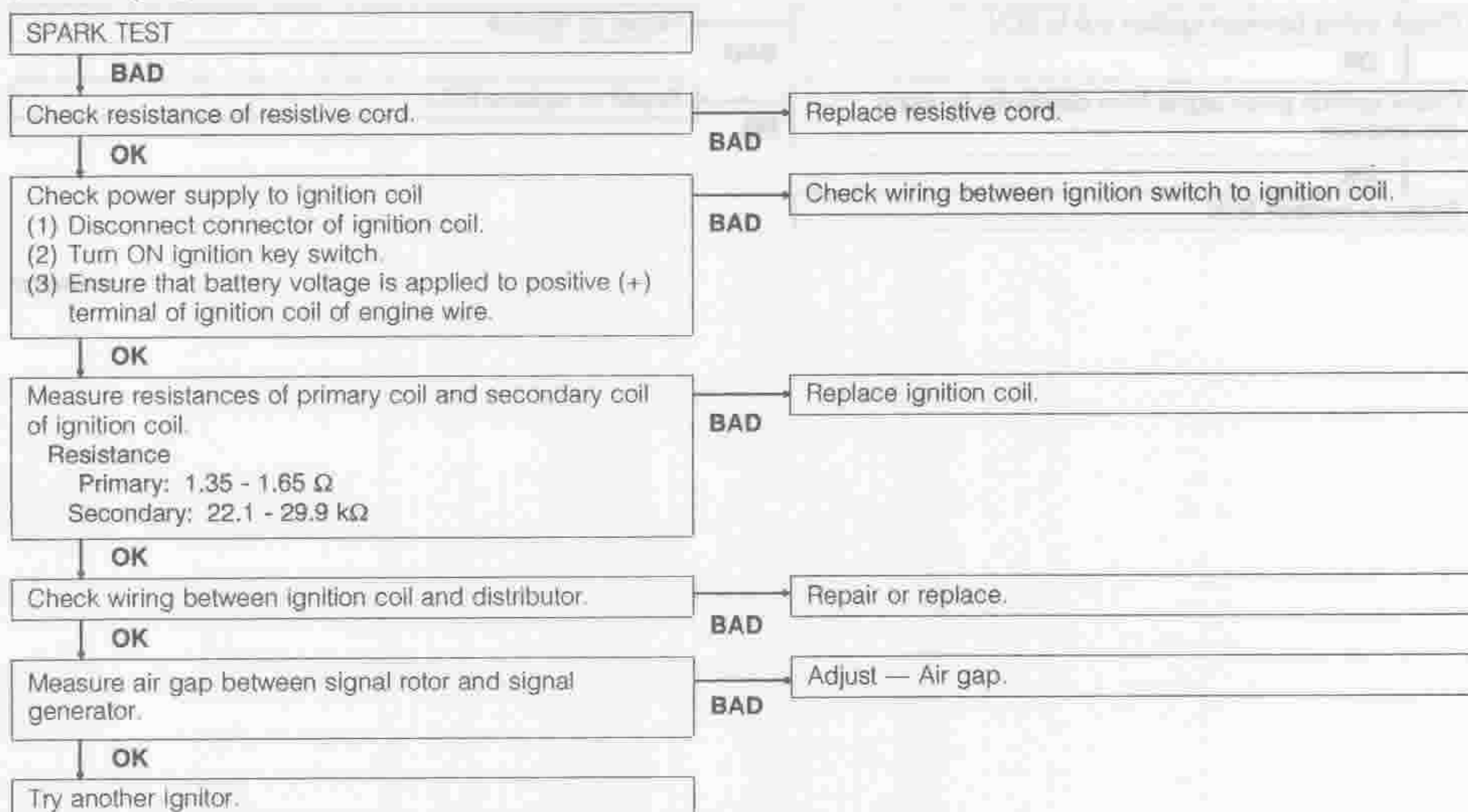
1. Turn OFF the ignition key switch.
2. Connect a timing light to the resistive cord between the distributor and the ignition coil.

#### NOTE:

- Be very careful not to damage the wire.
3. Ensure that the timing light flashes while the engine is being cranked by the starter motor.  
If the timing light flashes, check the resistive cord and spark plug.  
If the timing light will not flash, perform the check according to the chart given below.

LIG00003-00000

#### [ED-10 Engine]



LIG00004-00000

## [ED-20, EF-EL Engine]

SPARK TEST

**BAD**

Check resistance of resistive cord.

**OK**

Check power supply to ignition coil  
(1) Disconnect connector of ignition coil.  
(2) Turn ON ignition key switch.  
(3) Ensure that battery voltage is applied to positive (+) terminal of ignition coil.

**OK**

Measure the resistances of primary and secondary coil of ignition.

Resistance

Primary: 1.35 - 1.65  $\Omega$

Secondary: 22.1 - 29.9 k $\Omega$

**OK**

Measure the air gap between signal rotor and signal generator.

**OK**

Measure the resistance of signal generator of distributor.  
Resistance: 200 - 260  $\Omega$  (20°C)

**OK**

Check wiring between ignition coil to ECU.

**OK**

Check ignition pulse signal from distributor by using oscilloscope.

**OK**

Repair or replace ECU.

**BAD**

Replace resistive cord.

**BAD**

Check wiring between ignition switch to ignition coil.

**BAD**

Replace ignition coil.

**BAD**

Adjust air gap.

**BAD**

Replace distributor.

**BAD**

Repair or replace.

**NG**

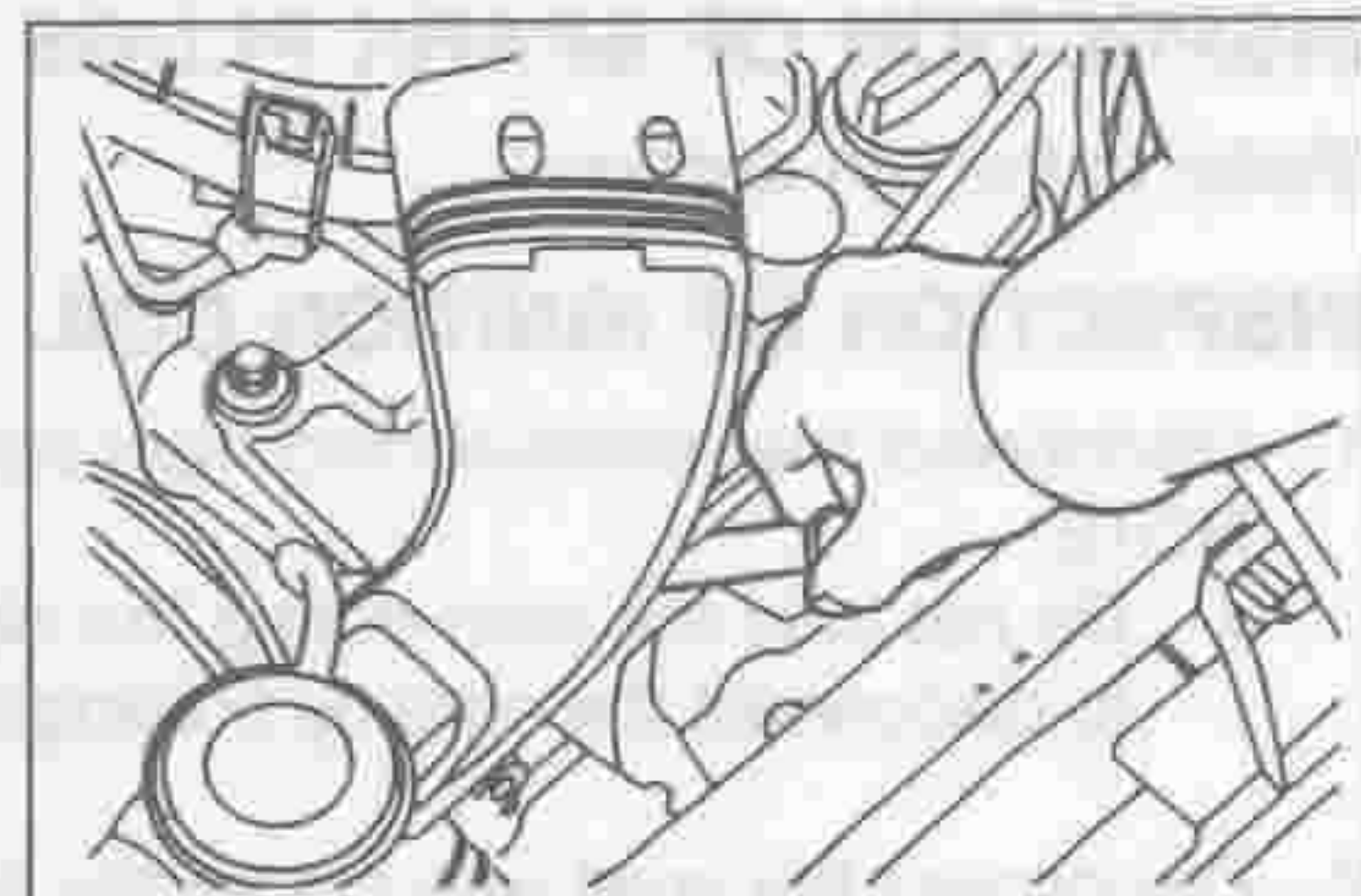
Repair or replace ECU.

## INSPECTION OF RESISTIVE CORDS

1. Carefully remove the resistive cords from the spark plugs and ignition coil by holding their rubber boots.

### CAUTION:

- Do not hold the cord portion or bend the cord. Otherwise, the conductor inside the cord may be damaged.



LIG00006-00002

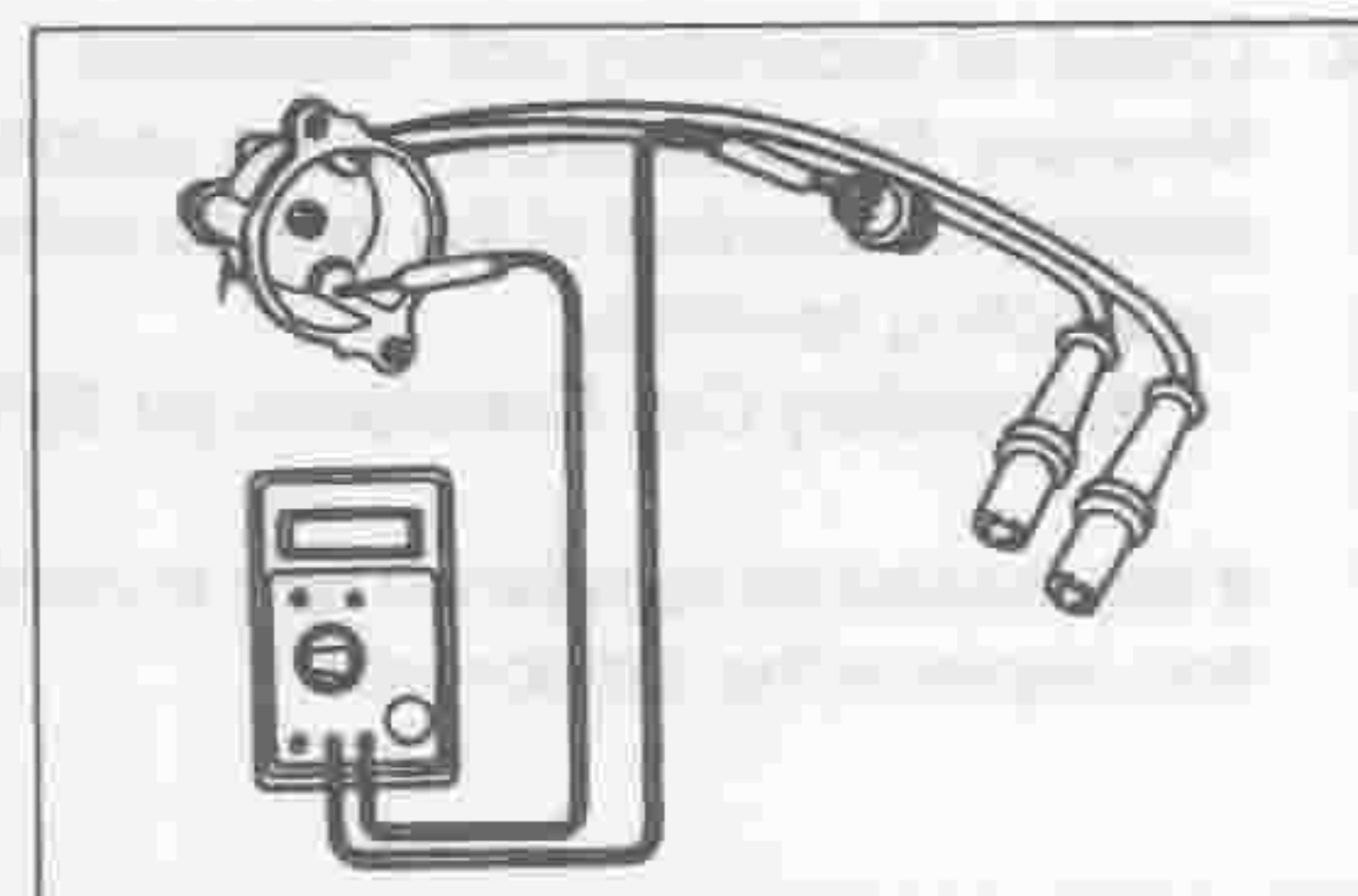
LIG00007-00000

2. Disconnect the resistive cords from the clamp.
3. Remove the distributor cap.



4. Inspection of resistance of resistive cord and distributor cap terminal

Maximum Resistance: 15 k $\Omega$



LIG00008-00003

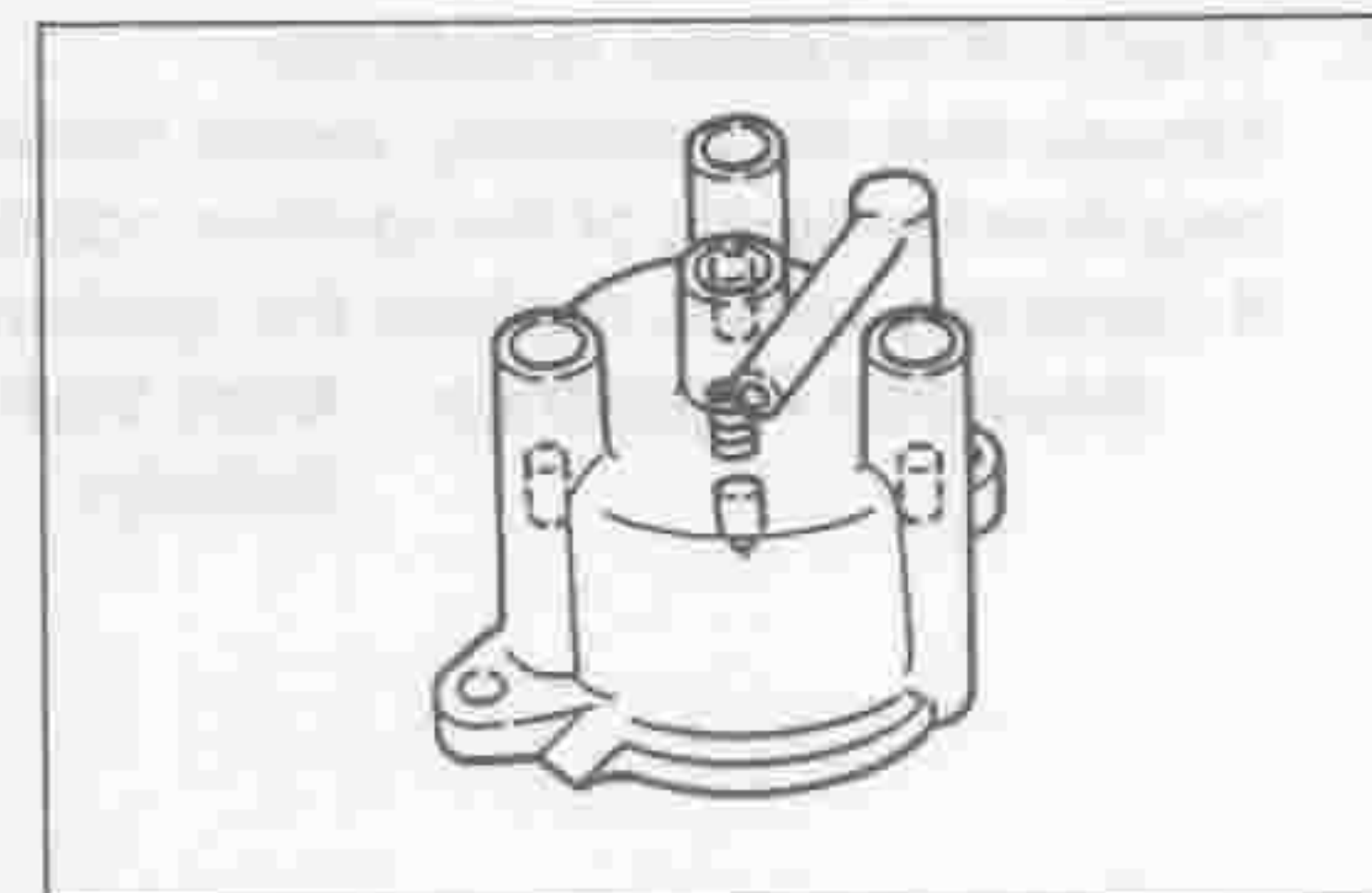
If the resistance exceeds the maximum limit, check the distributor cap terminals.

Replace the resistive cord and/or distributor cap, as required.

5. Install the distributor cap with a new distributor cap gasket interposed.

### NOTE:

- If the distributor gasket is damaged, replace it with a new one.



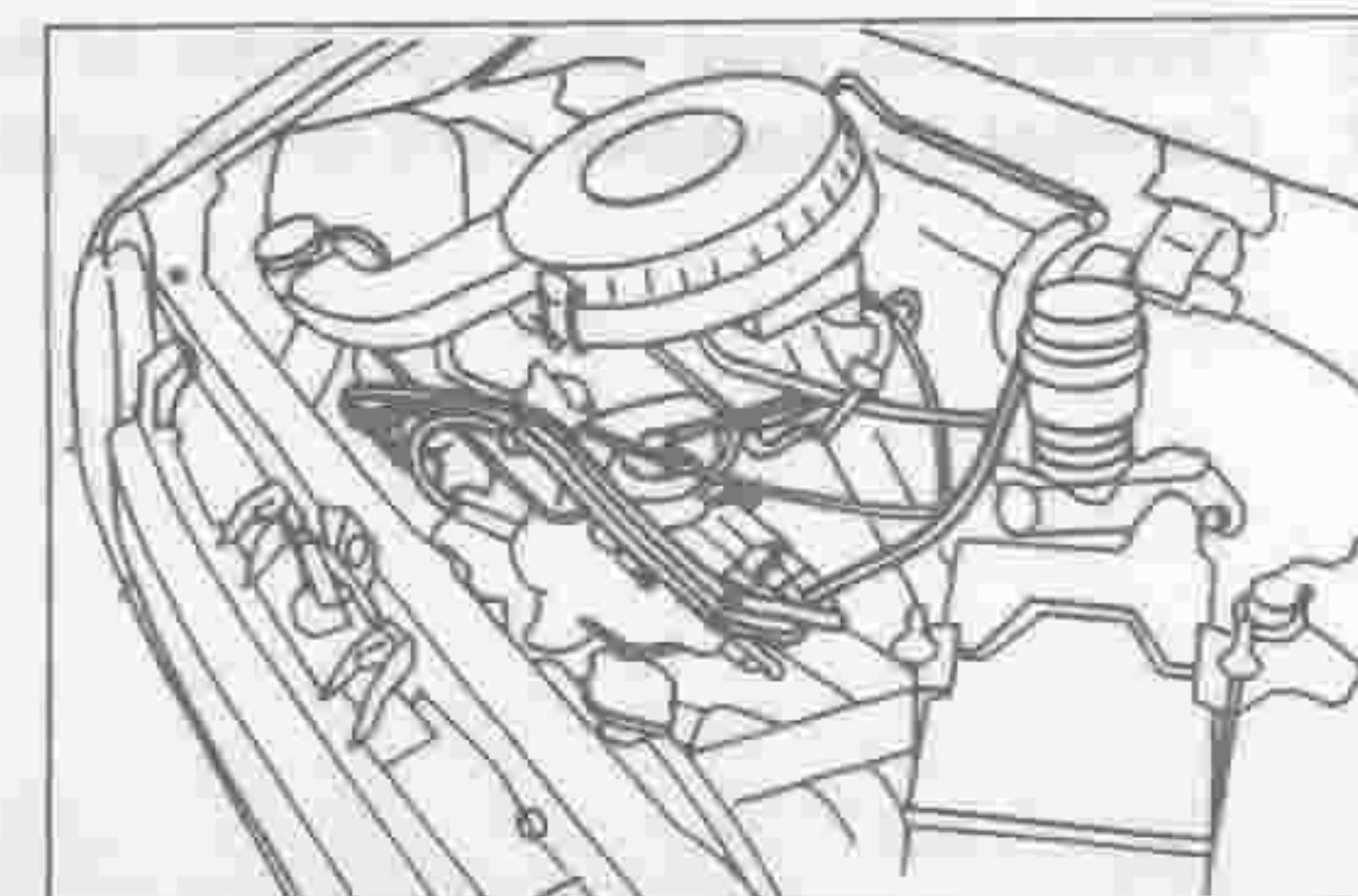
LIG00009-00004

6. Connect the resistive cords to the spark plugs and ignition coil.

### CAUTION:

- Be very careful not to damage the rubber boot.

7. Connect the resistive cords to the clamp.



LIG00010-00005

## INSPECTION OF SPARK PLUGS

(Refer to the MA section.)

## INSPECTION OF IGNITION COIL

1. Disconnect the resistive cord from the ignition coil.  
NOTE:
  - Do not hold the cord during the disconnection. Be sure to disconnect the cord by holding its rubber boot.
2. Disconnect the cowl wire connector from the ignition coil.

3. Check of primary coil resistance  
Measure the resistance of the primary coil across the terminals of the ignition coil connector.

Primary Coil Resistance (at 20°C): 1.35 - 1.65  $\Omega$

If the measured resistance fails to conform to the specification, replace the ignition coil.

4. Check of secondary coil resistance  
Measure the resistance of the secondary coil across the positive (+) terminal of the ignition coil and the resistive cord connecting terminal.

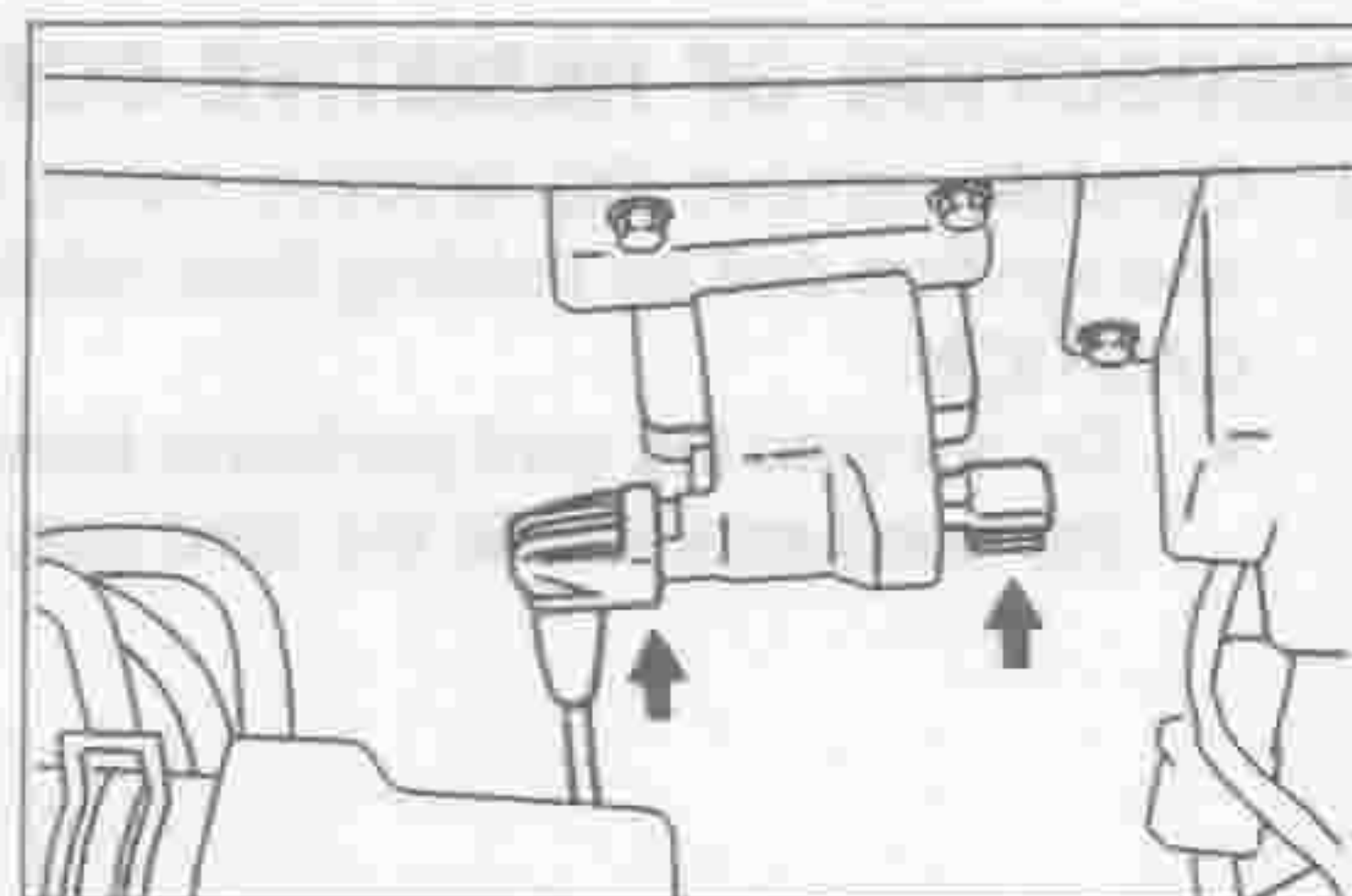
Secondary Coil Resistance (at 20°C): 22.1 - 29.9 k $\Omega$

If the measured resistance fails to conform to the specification, replace the ignition coil.

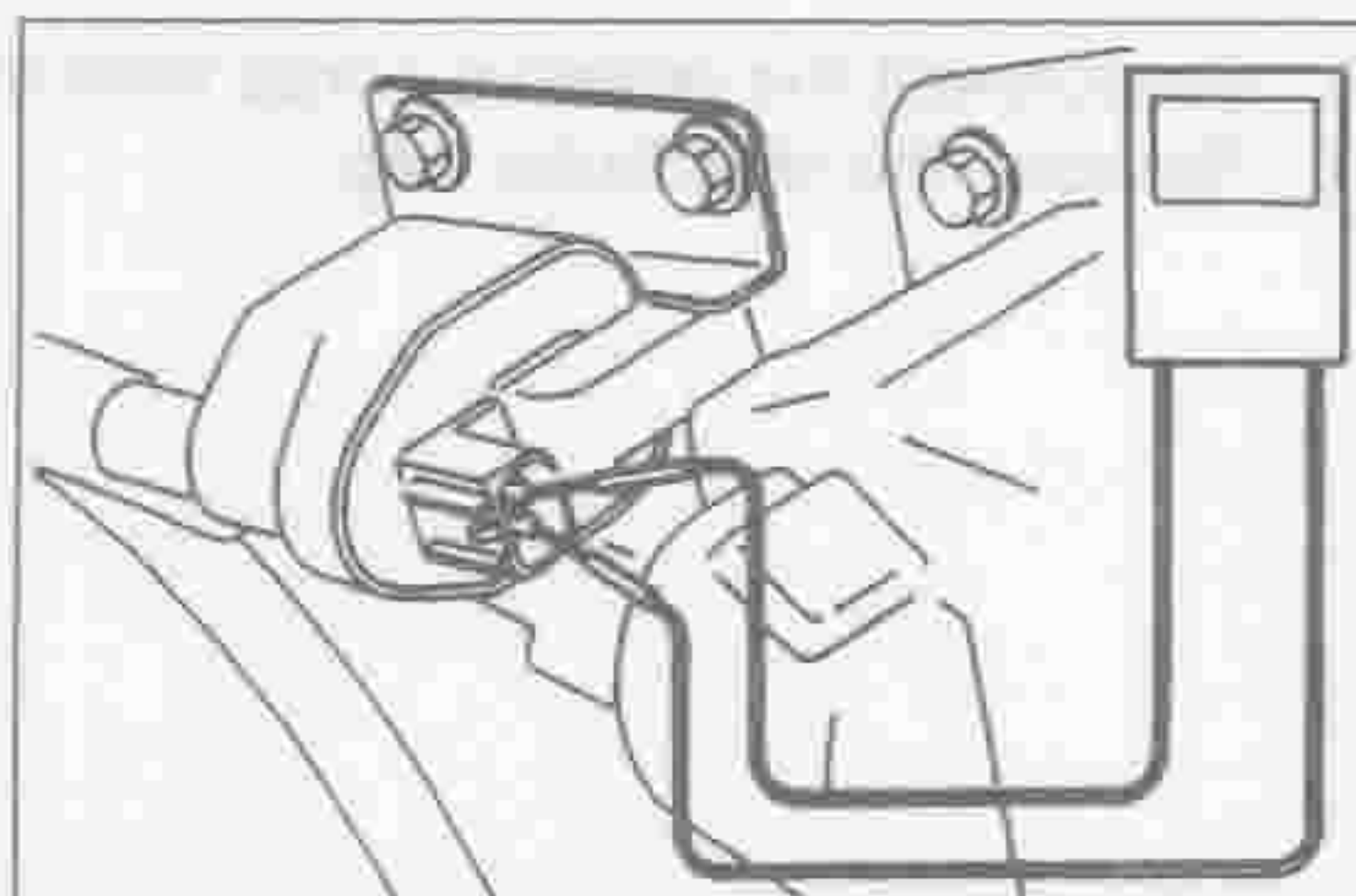
5. Check of insulation resistance  
Ensure that no continuity exists between the positive and negative terminals of the ignition coil and the body ground. If continuity exists, replace the ignition coil.

Insulation Resistance: More than 1000 k $\Omega$   
(Infinity)

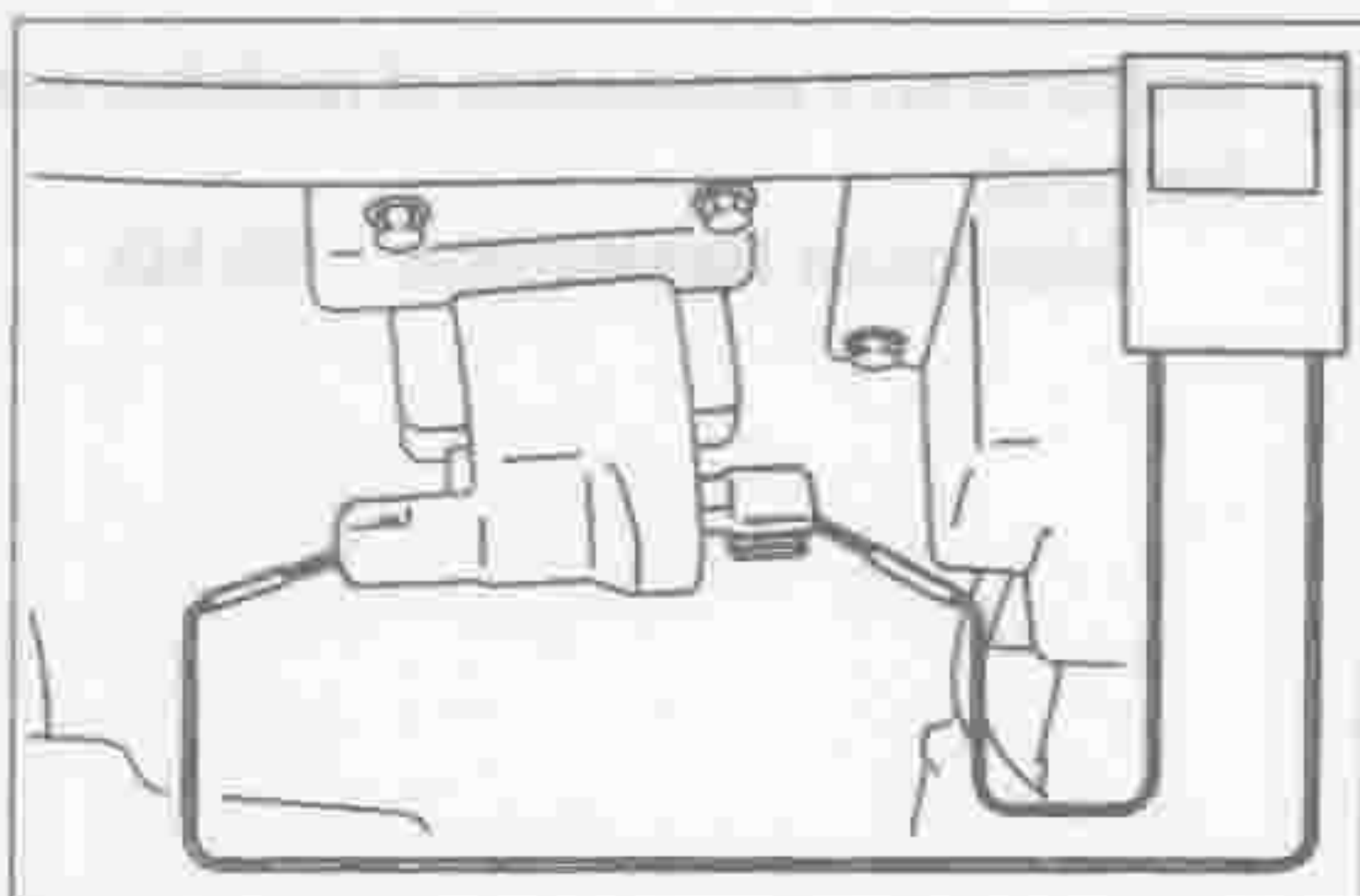
6. Connect the cowl wire connector to the ignition coil.
7. Connect the resistive cord to the ignition coil.



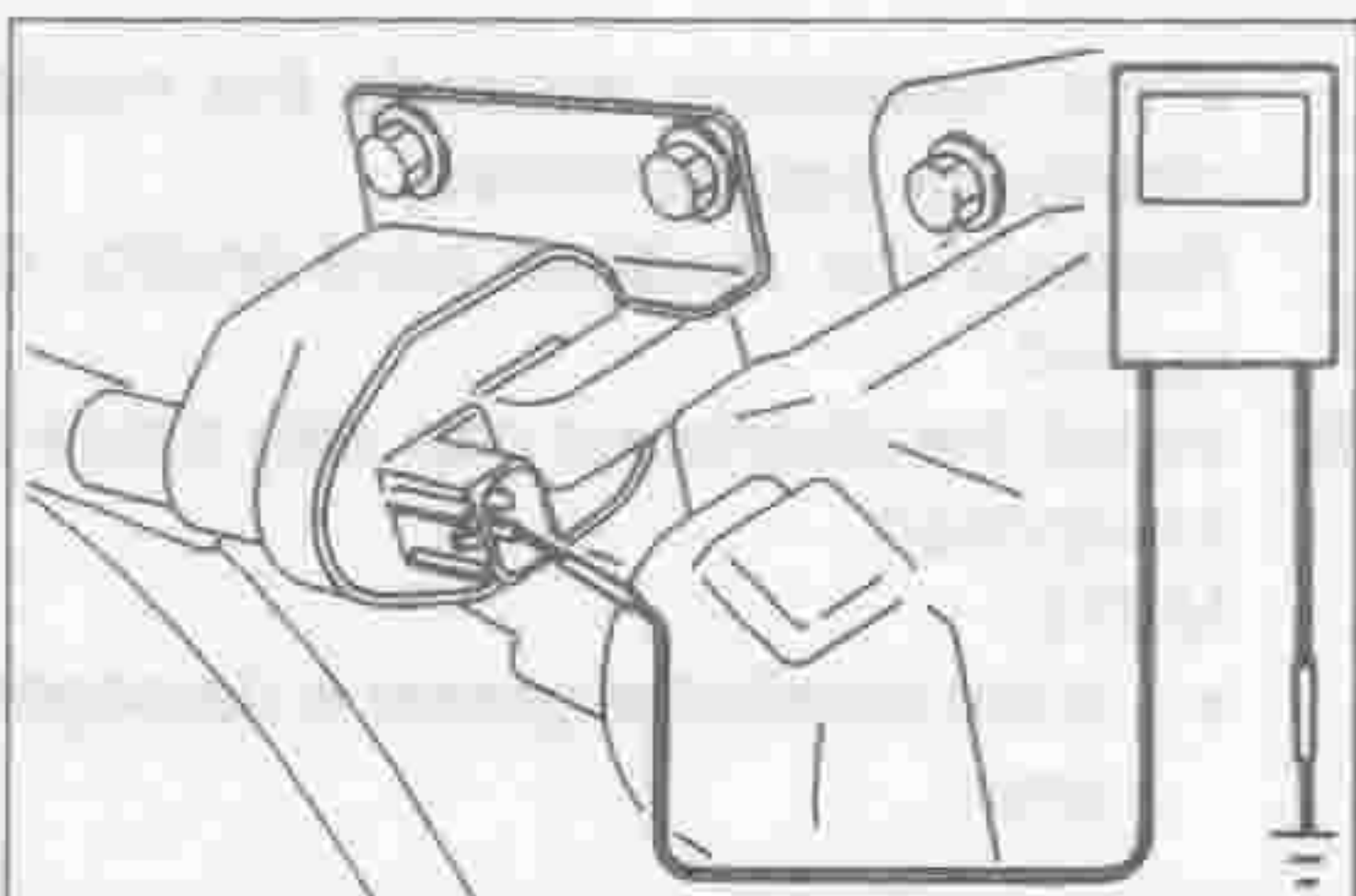
LIG00011-00006



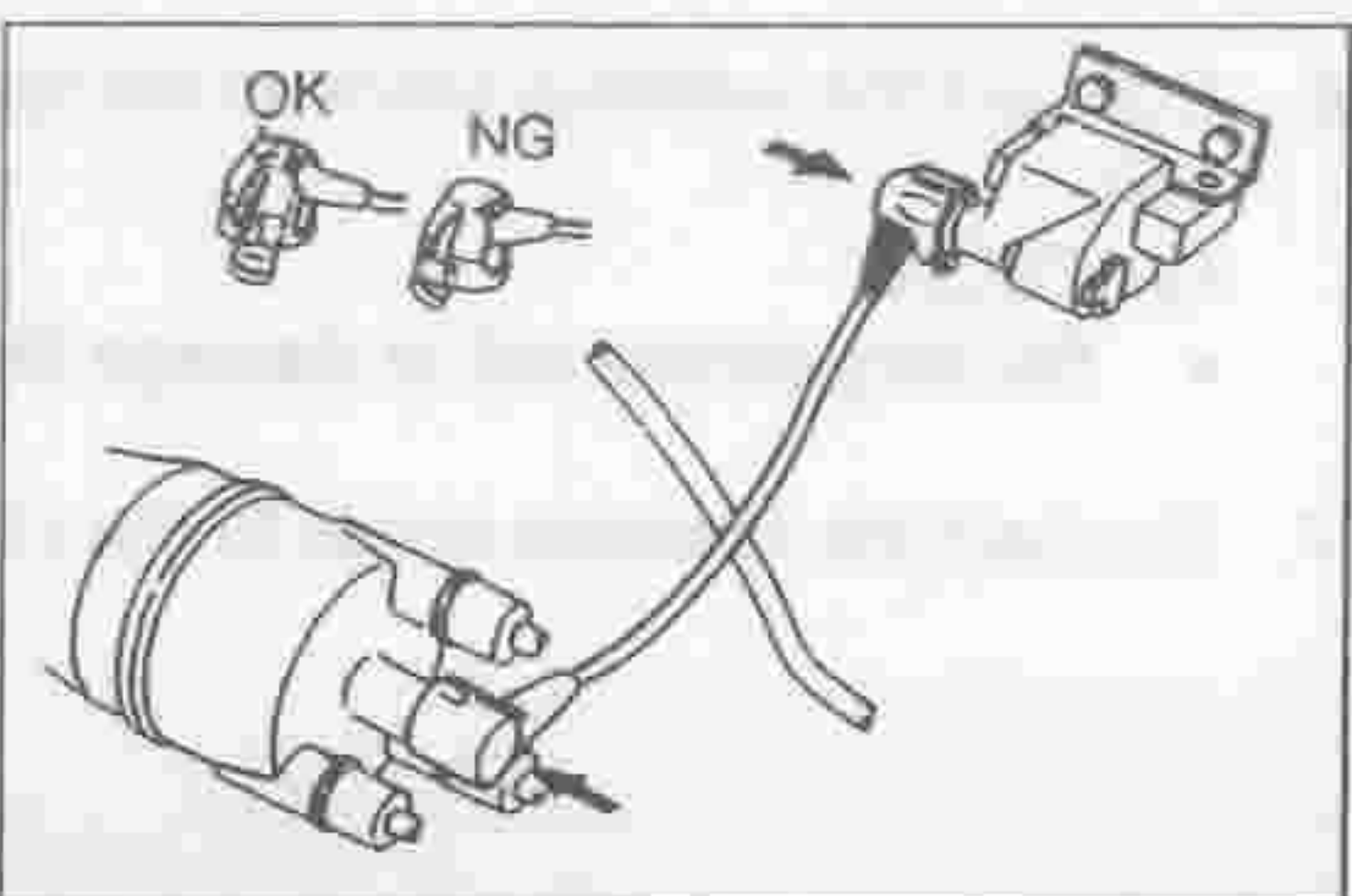
LIG00012-00007



LIG00013-00008



LIG00014-00009

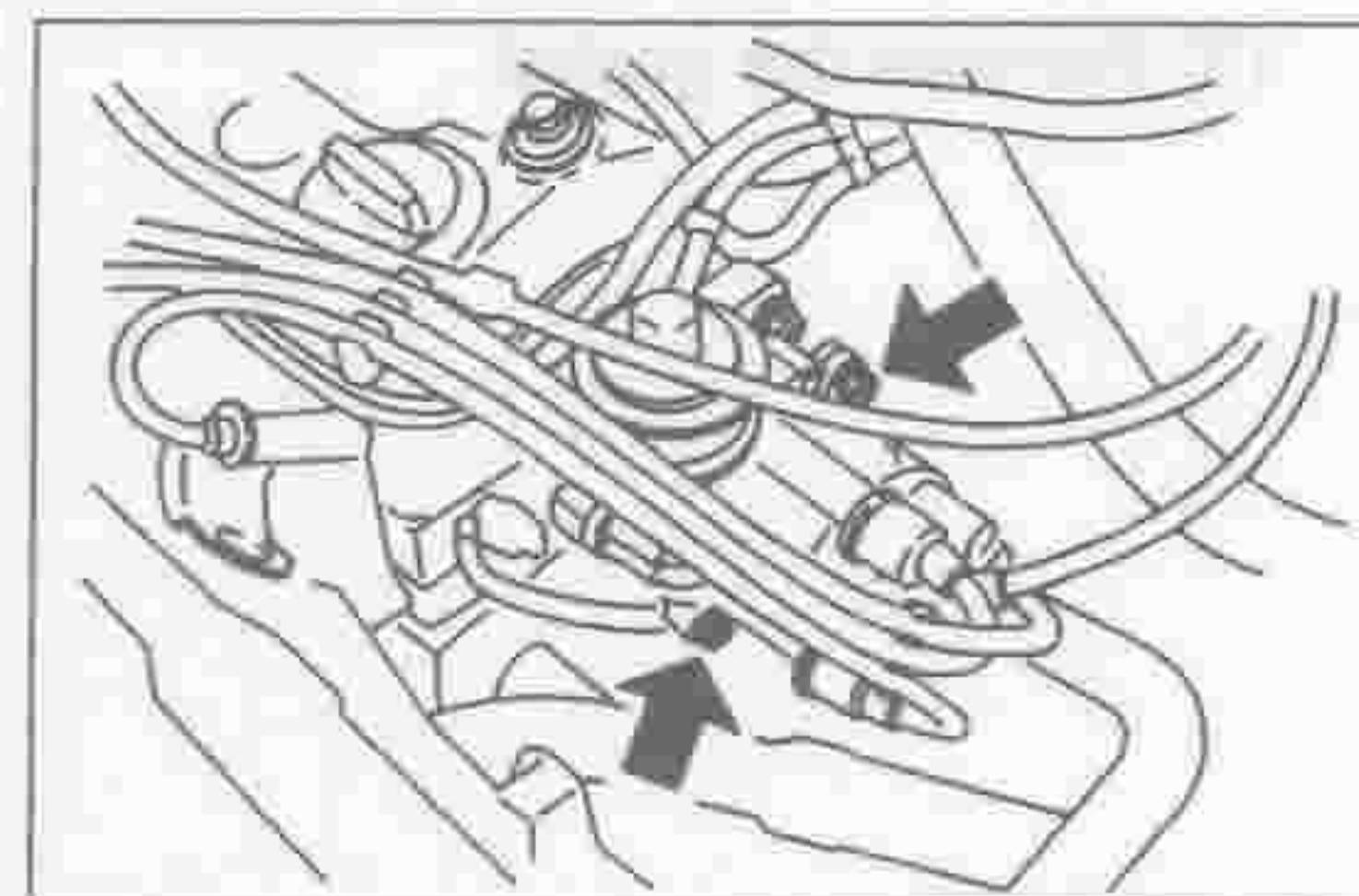


LIG00015-00010

## INSPECTION &amp; ADJUSTMENT OF AIR GAP

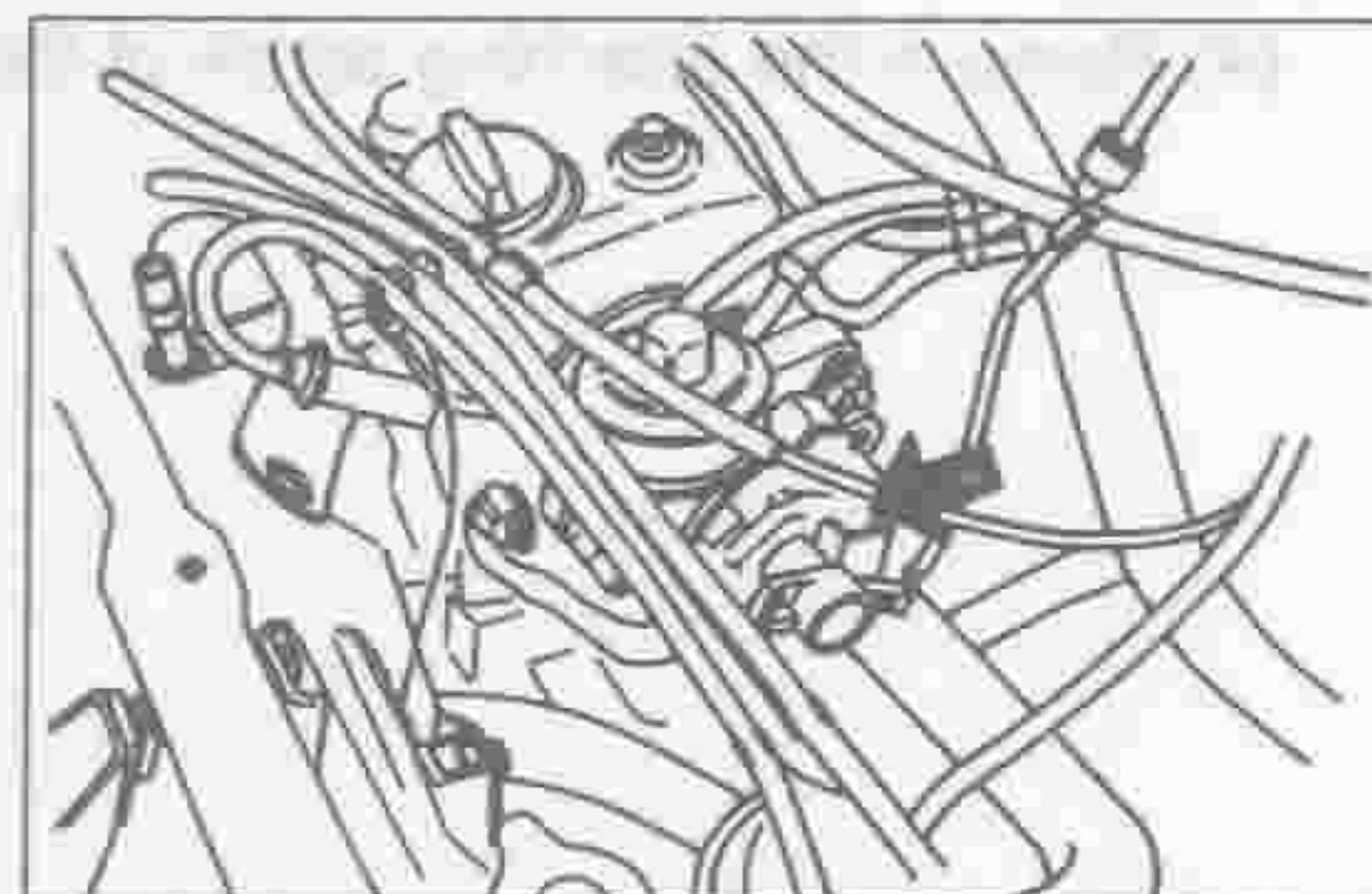
## [ED-10 Engine]

1. Remove the distributor cap.



LIG00016-00011

2. Pull out the rotor.

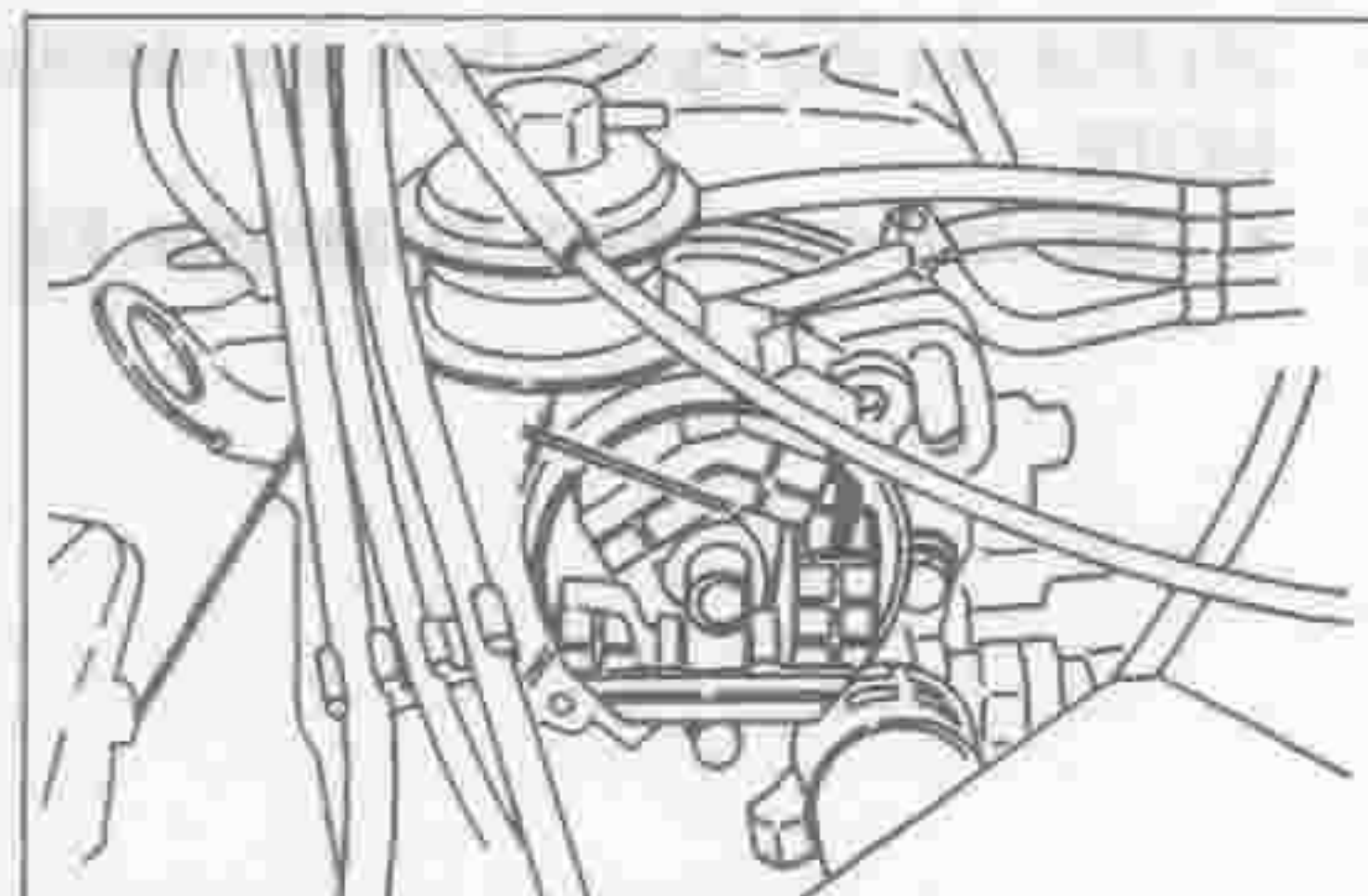


LIG00017-00012

3. Turn the crankshaft, until the signal rotor faces toward the signal generator.
4. At all three points, check to see if the air gap between the signal generator and the signal rotor conforms to the specified value.

Specified Air Gap: 0.2 - 0.4 mm

If the air gap fails to conform to the specified value, adjust the air gap.



LIG00018-00013

5. Adjustment of air gap

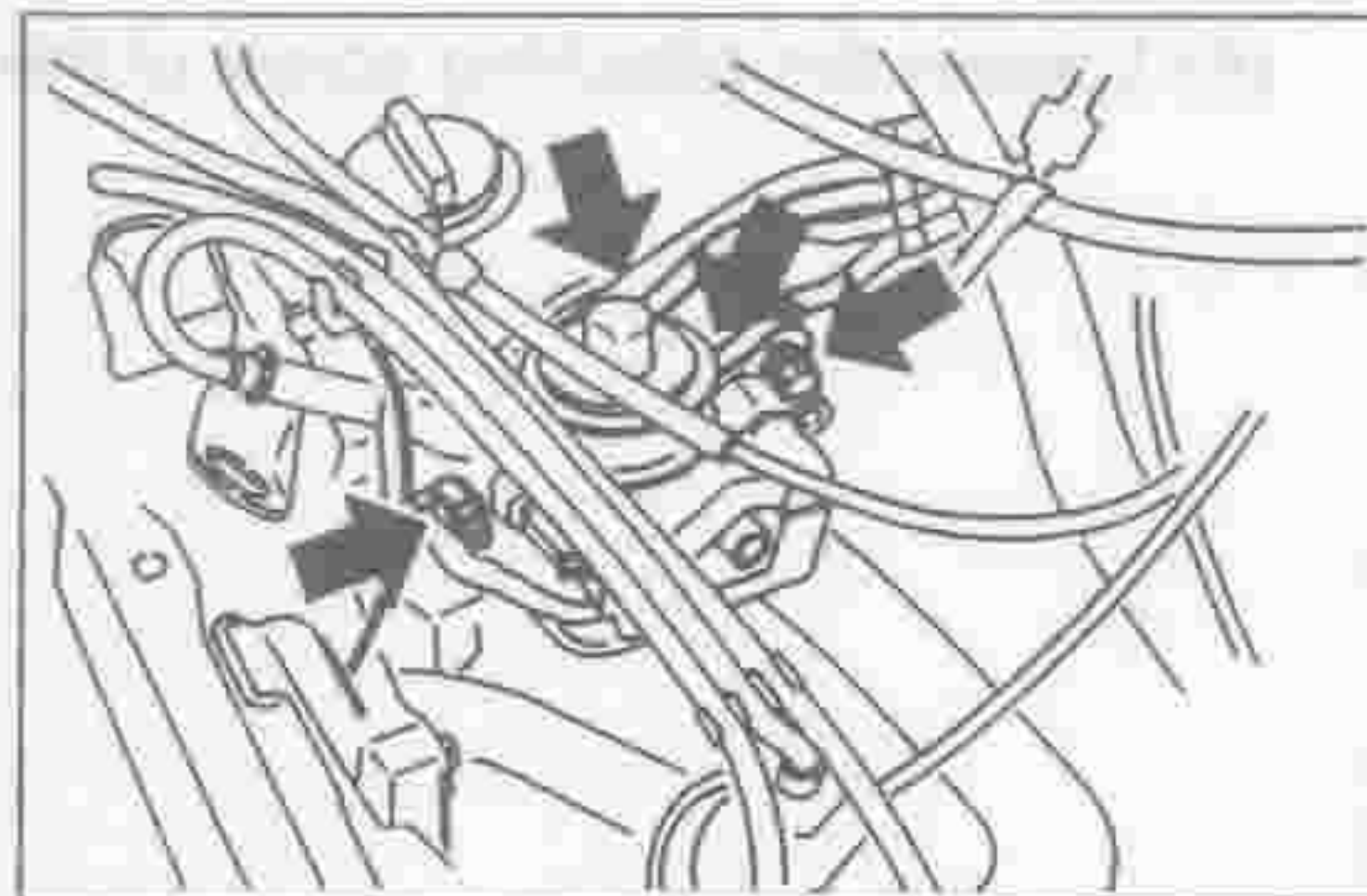
## (1) Removal of distributor

- ① Disconnect the vacuum hoses from the vacuum advancer.
- ② Disconnect the connector from the distributor.
- ③ Remove the distributor retaining bolt.
- ④ Pull out the distributor.

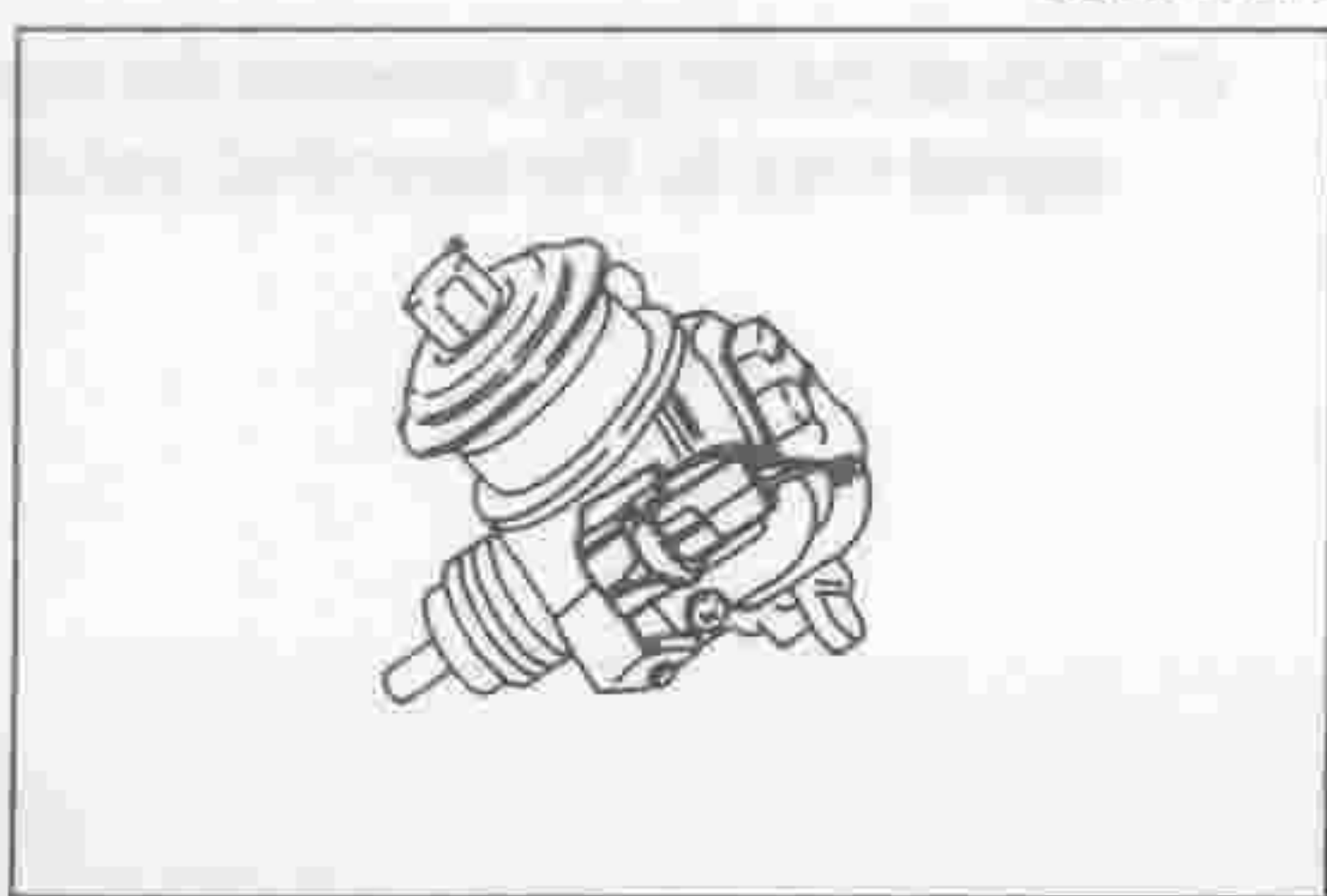
## NOTE:

- Since the oil flows out, place a suitable cloth or the like under the connecting section of the distributor and the cylinder head.

- (2) Remove the ignitor connector from the distributor.



LIG00019-00014



LIG00020-00015

(3) Remove the gasket.



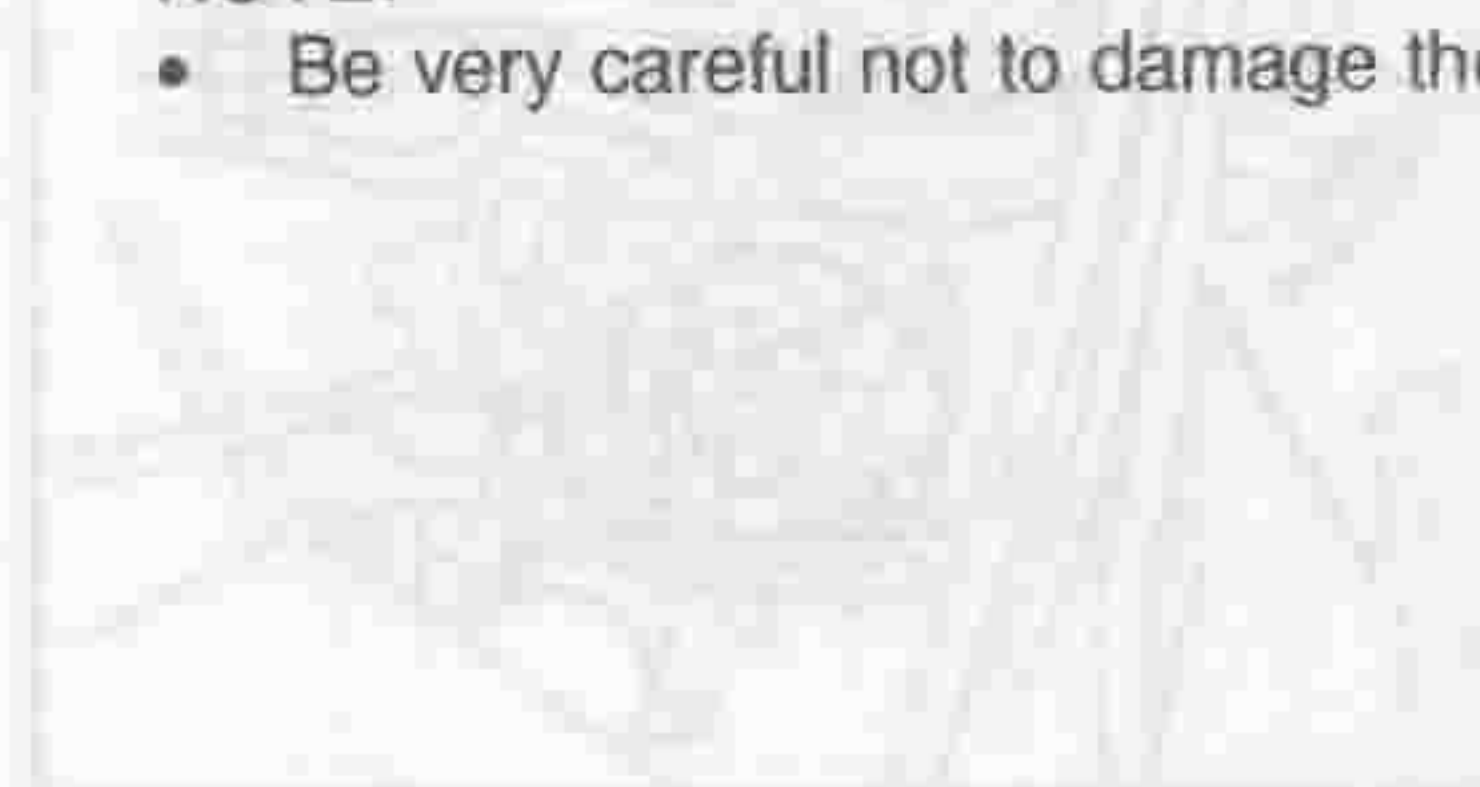
(4) Remove the attaching screw of the ignitor.



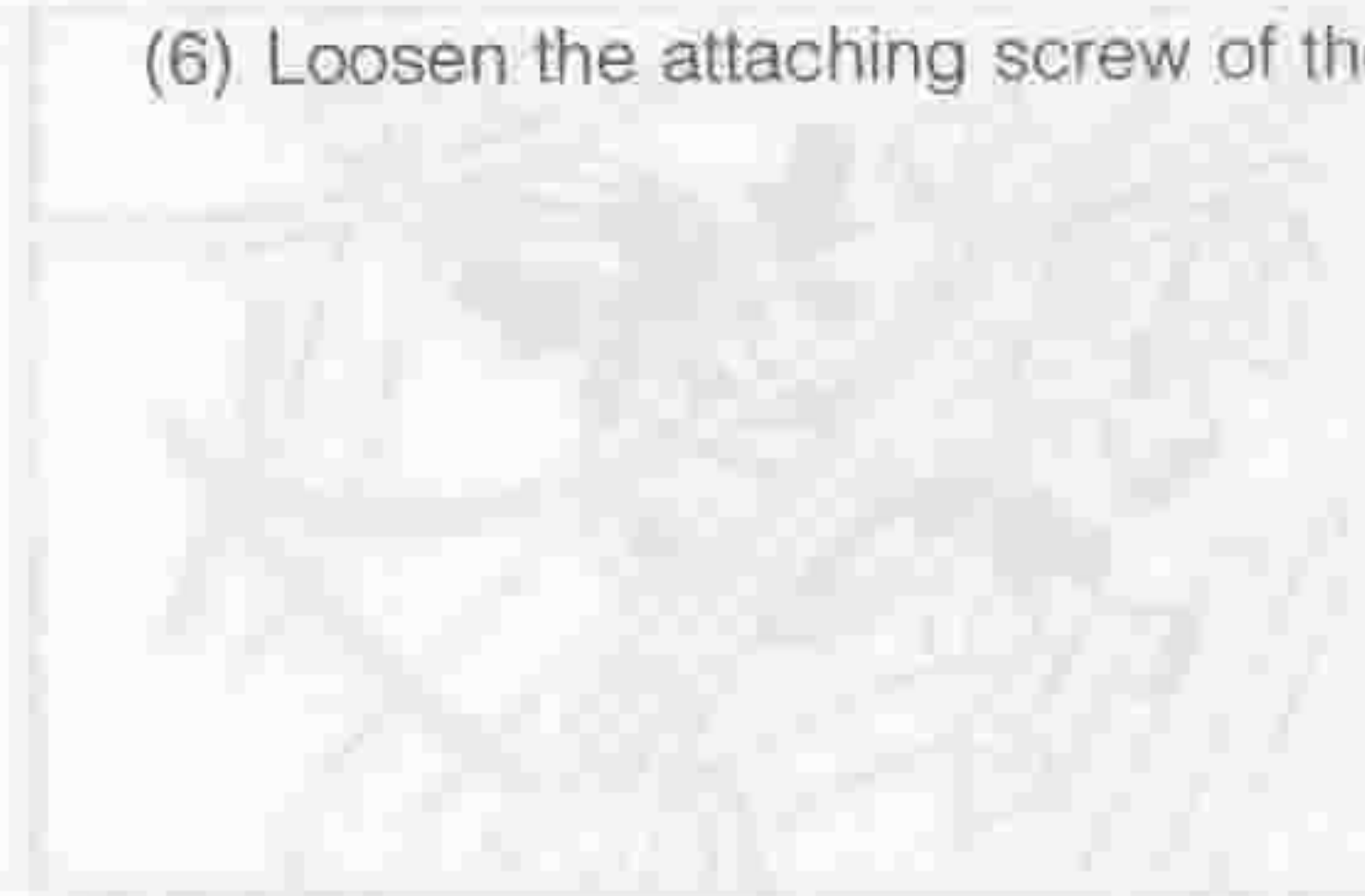
(5) Pull out the ignitor from the distributor.

NOTE:

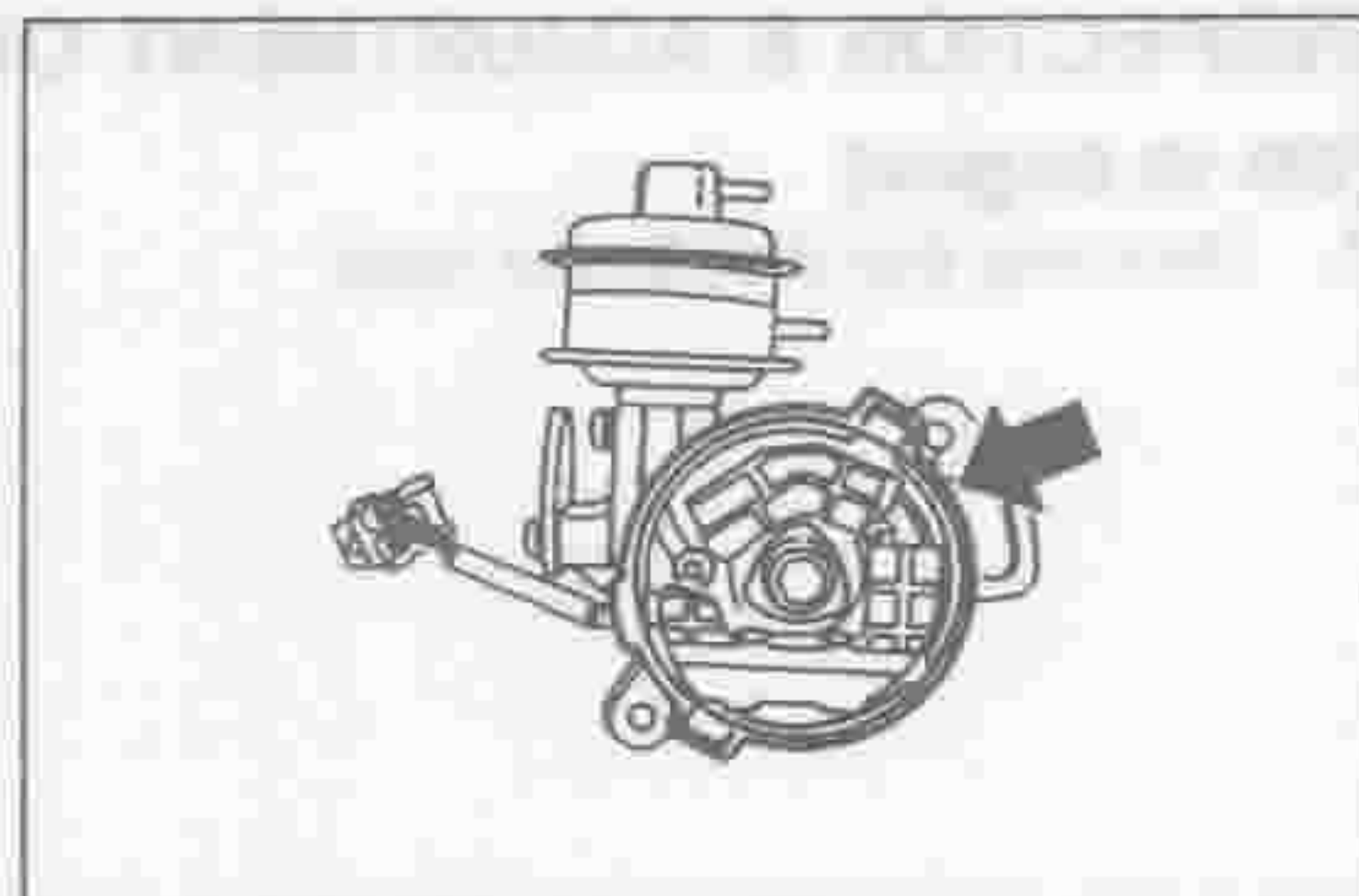
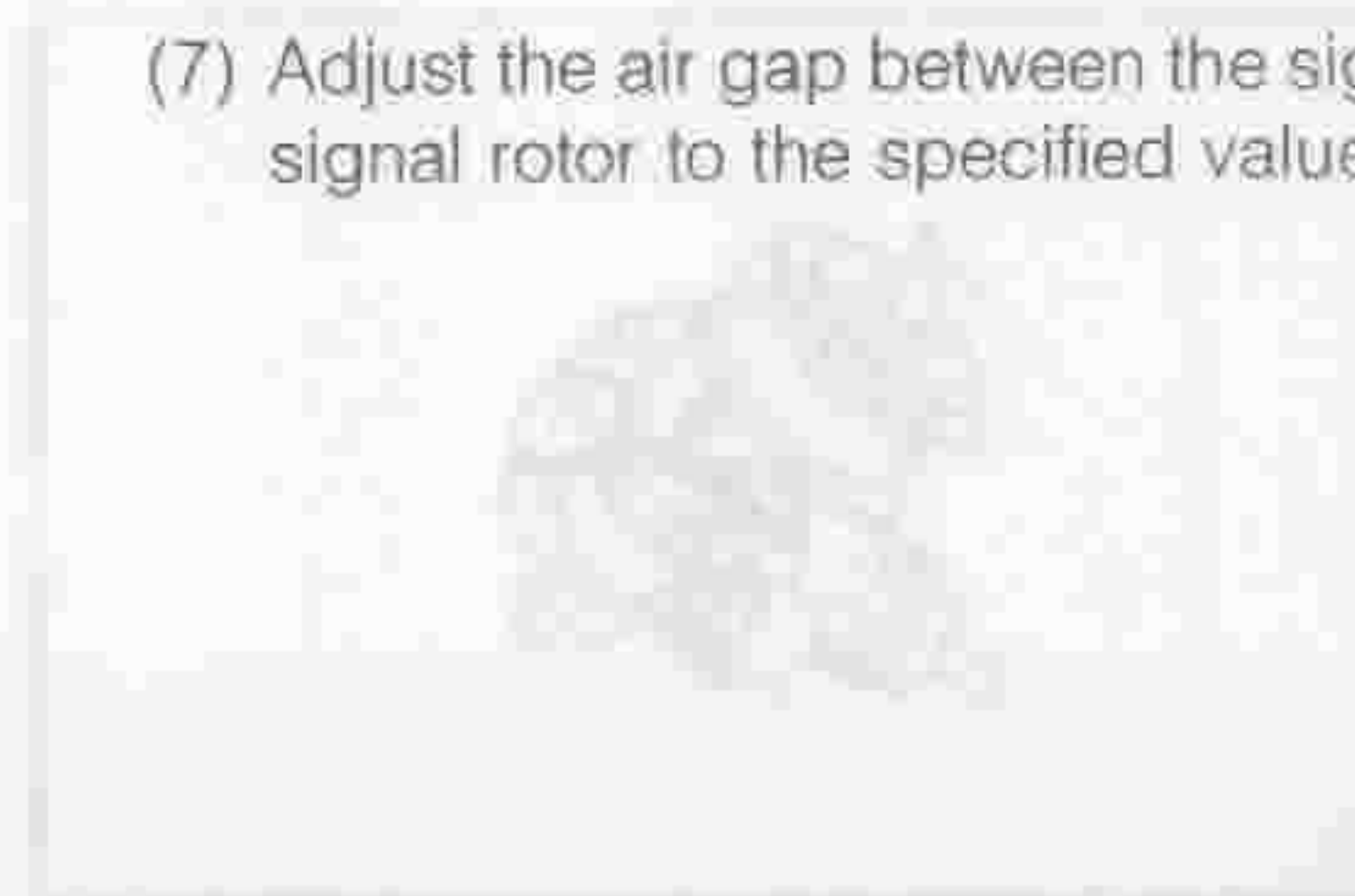
- Be very careful not to damage the cords.



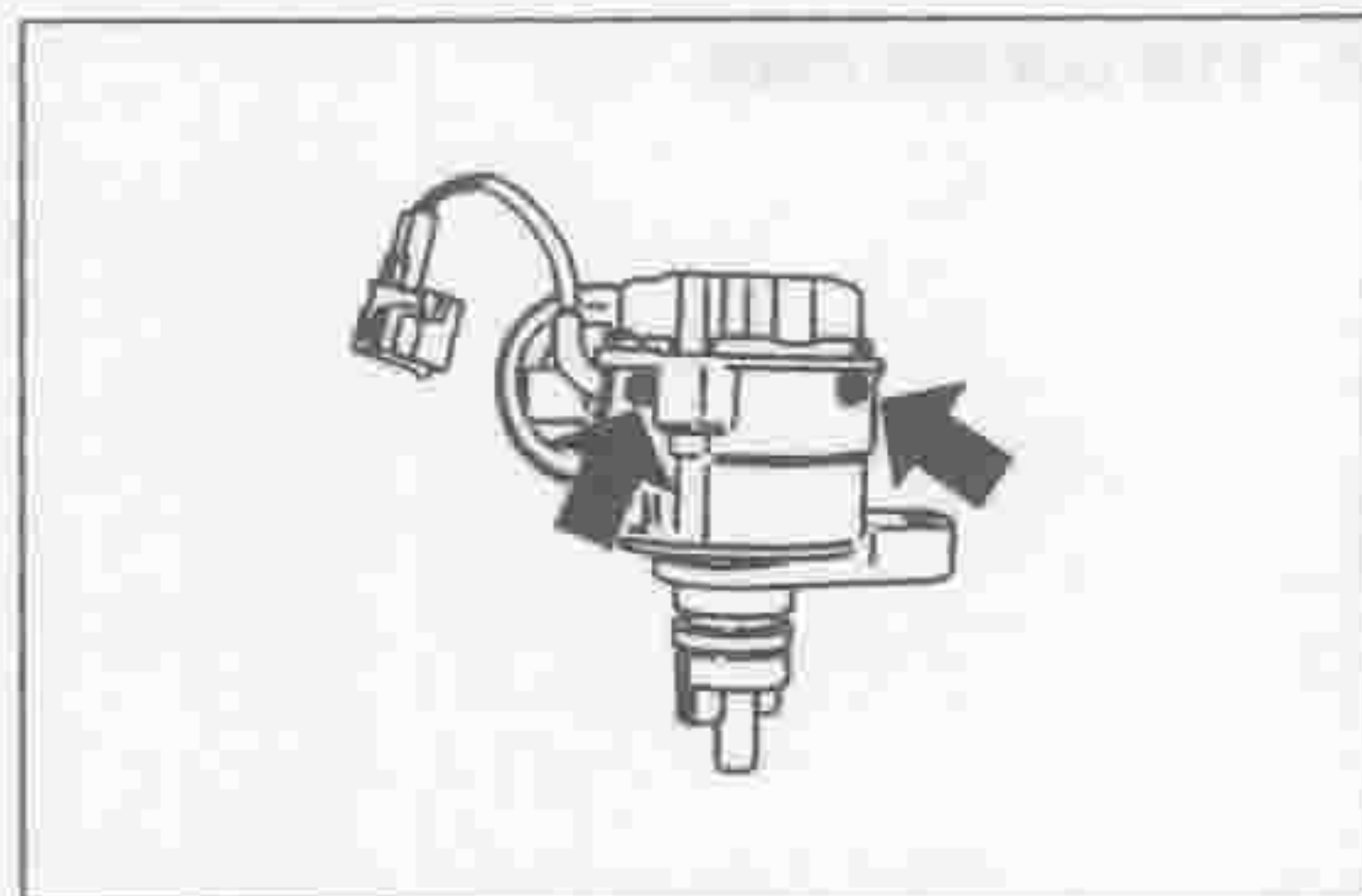
(6) Loosen the attaching screw of the signal generator.



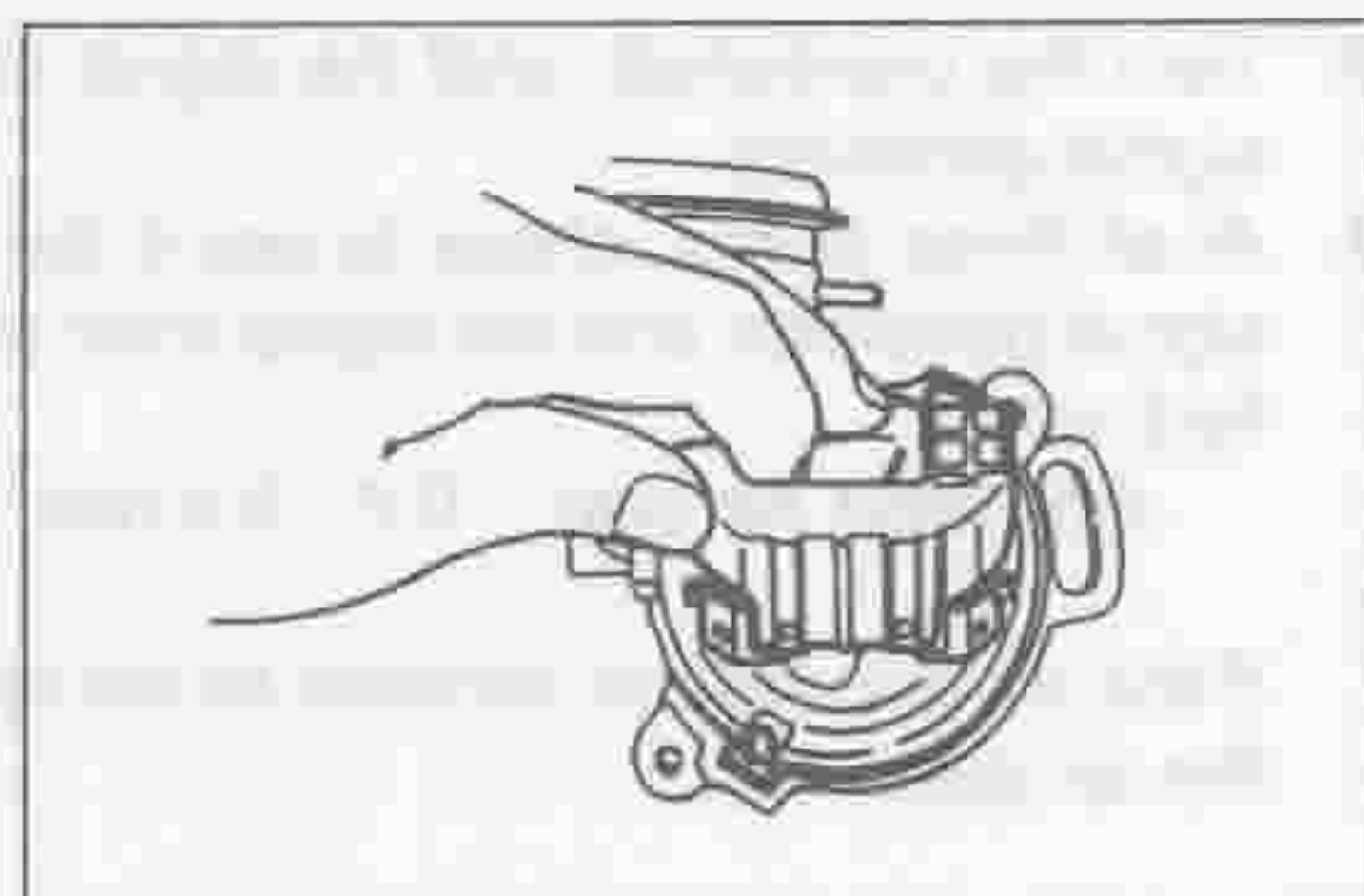
(7) Adjust the air gap between the signal generator and the signal rotor to the specified value.



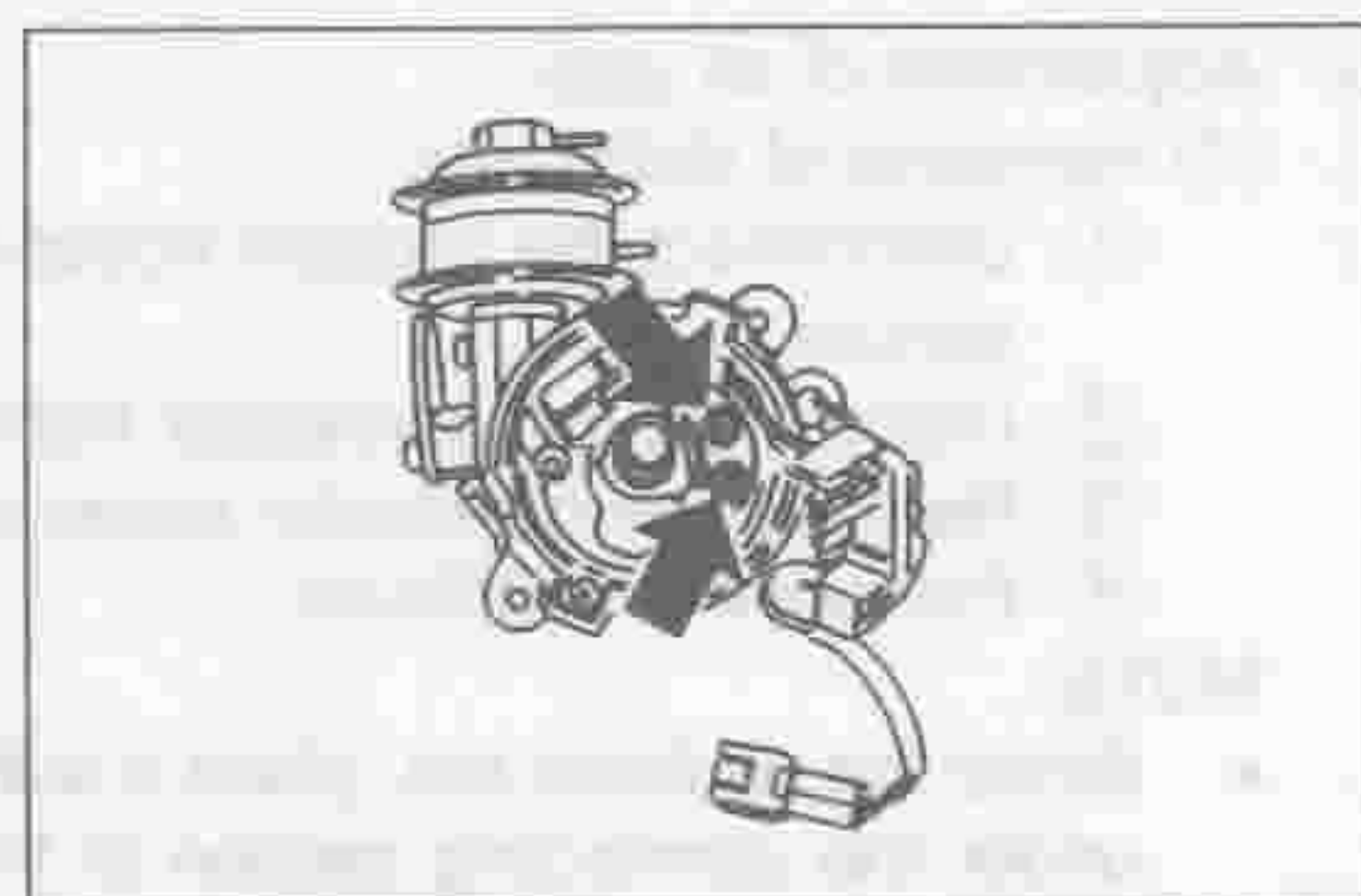
LIG00021-00016



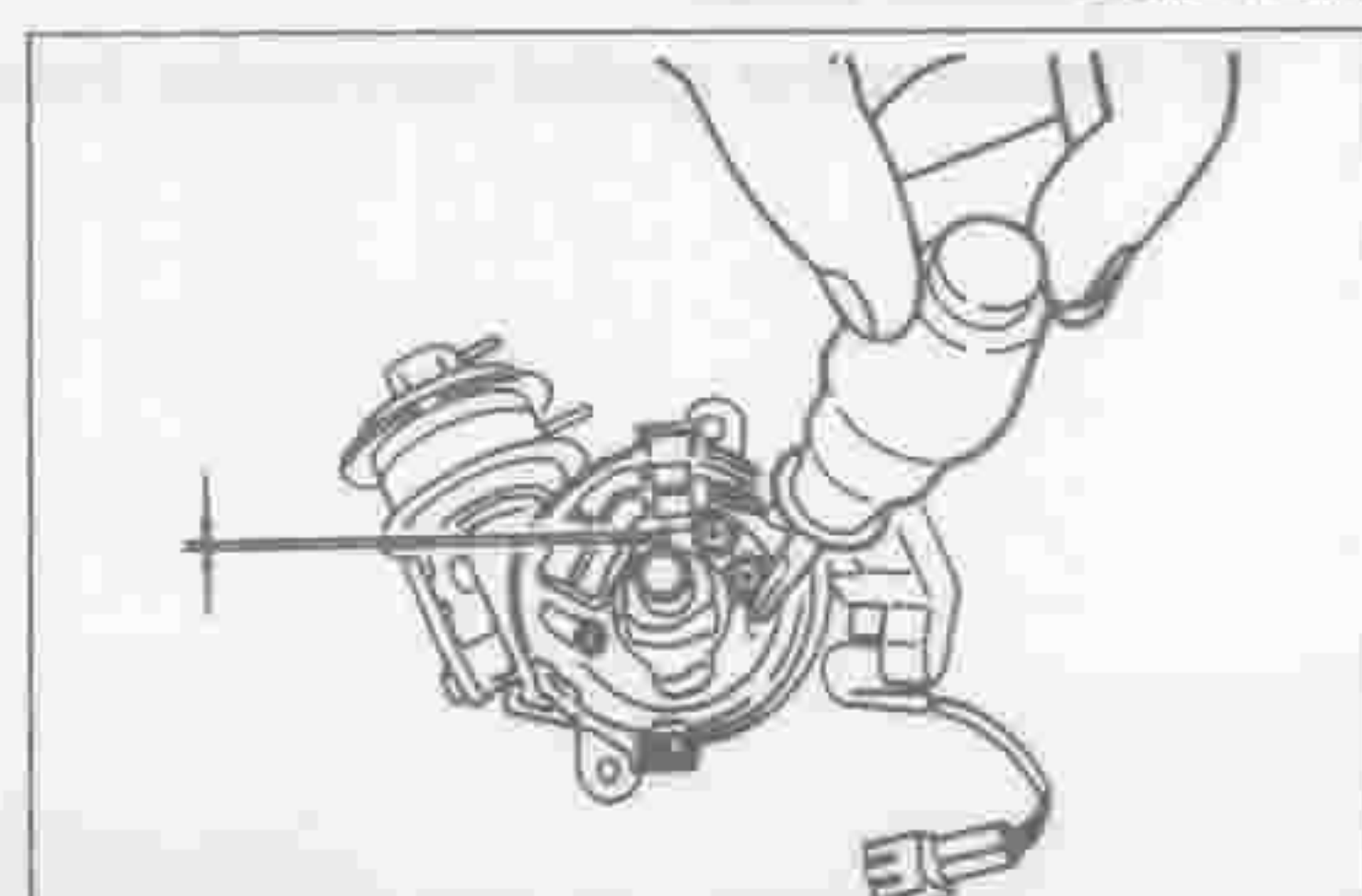
LIG00022-00017



LIG00023-00018

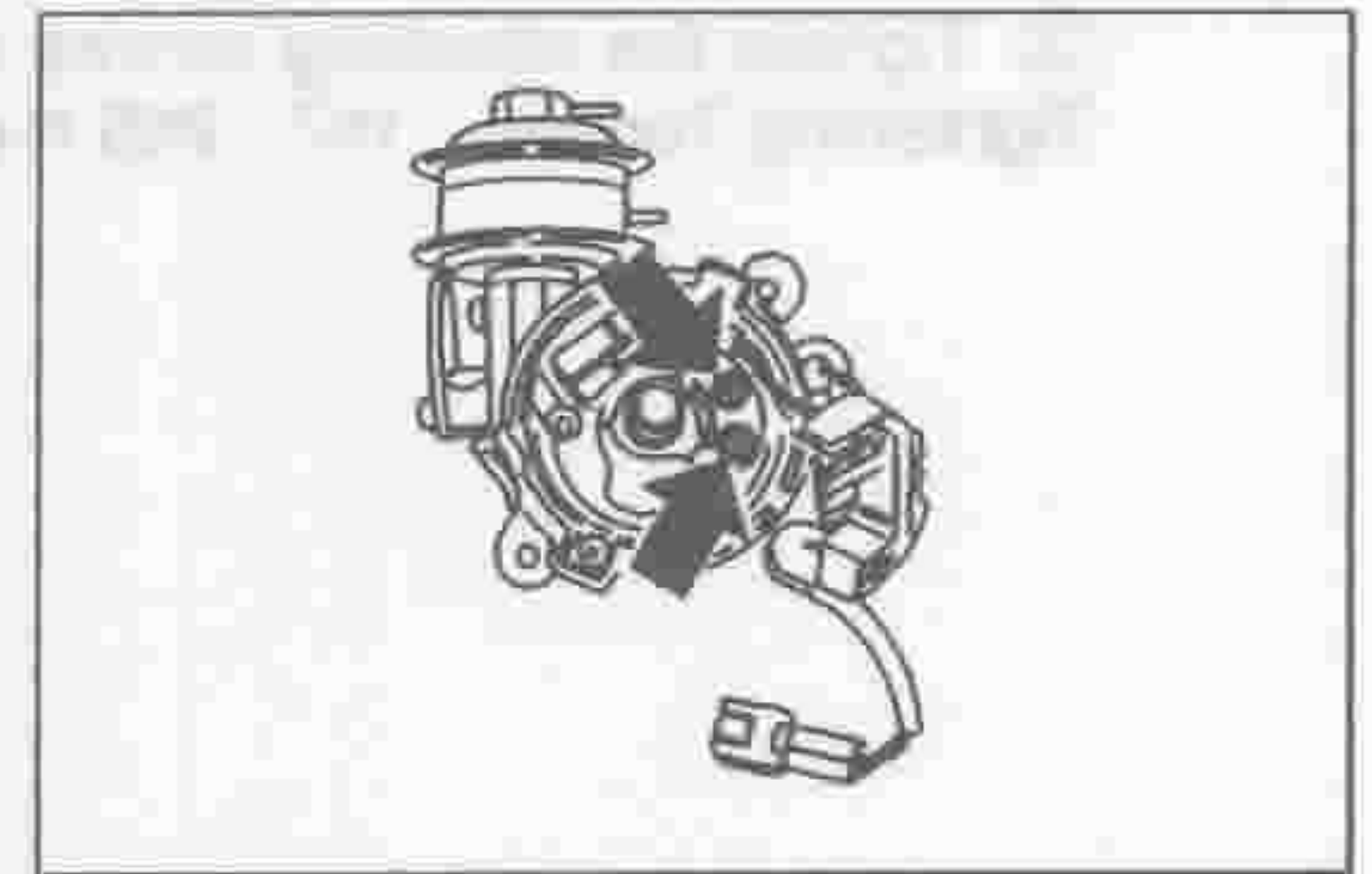


LIG00024-00019



LIG00025-00020

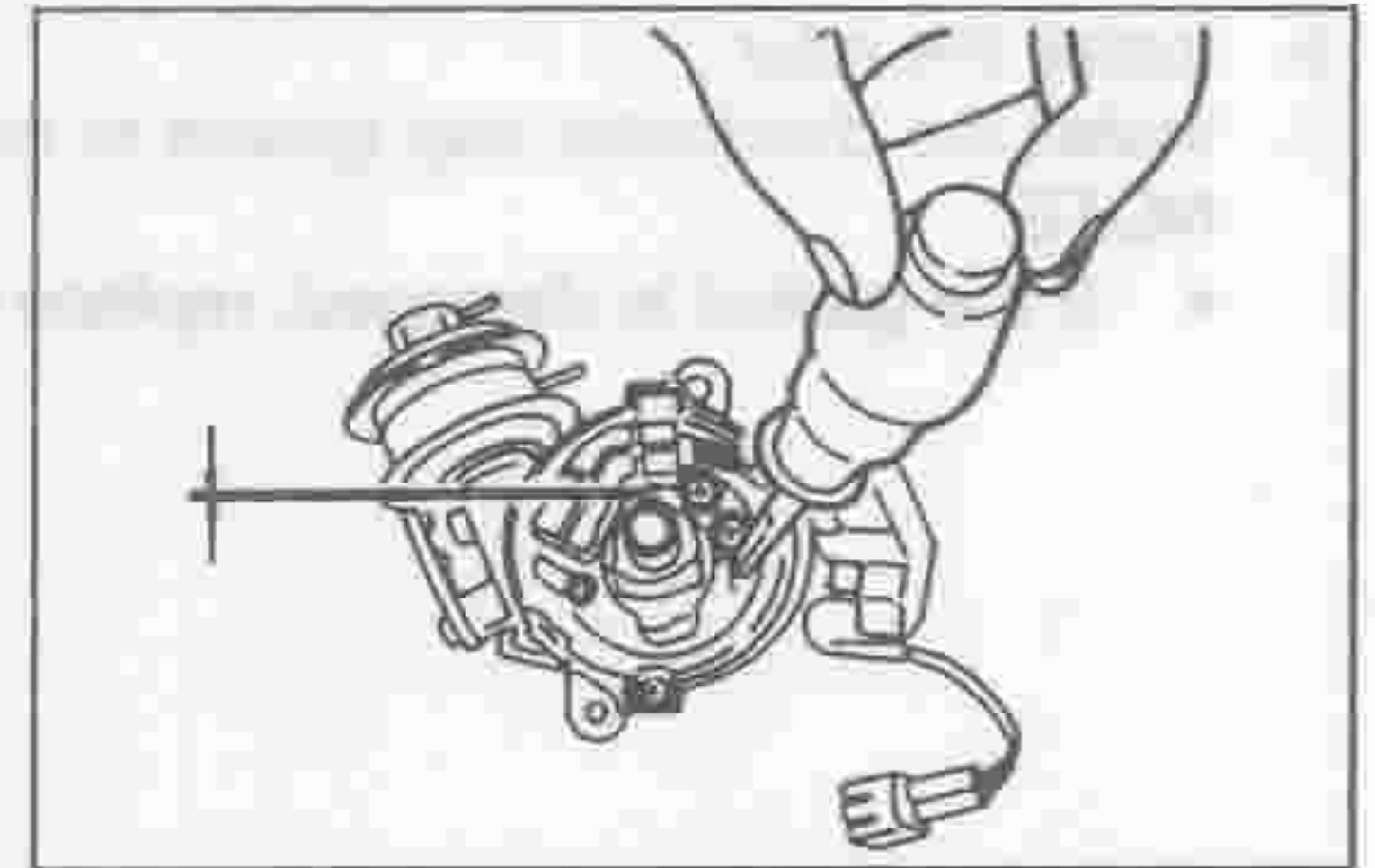
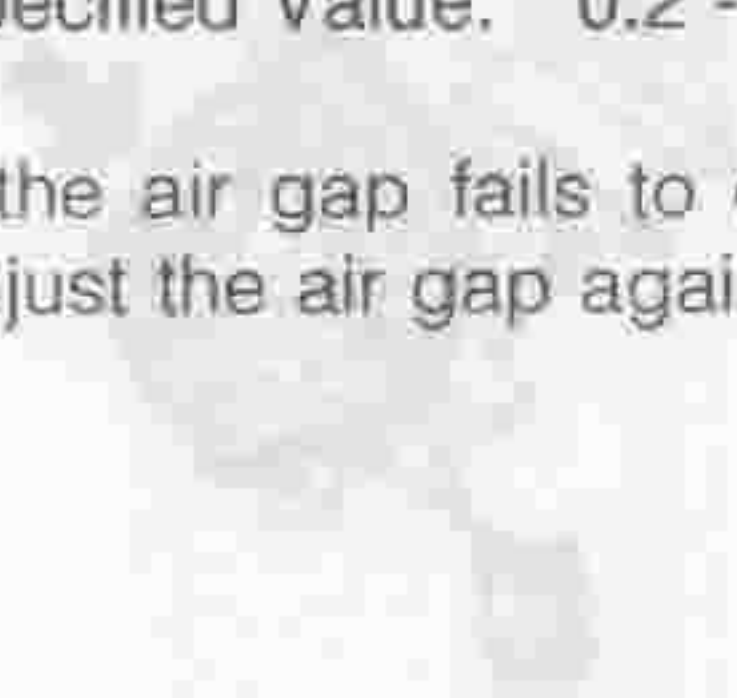
- (8) Tighten the attaching screws of the signal generator.  
Specified Value: 118 - 206 N·cm (12 - 21 kgf·cm)



LIG00026-00021

- (9) Check the air gap.  
Specified Value: 0.2 - 0.4 mm

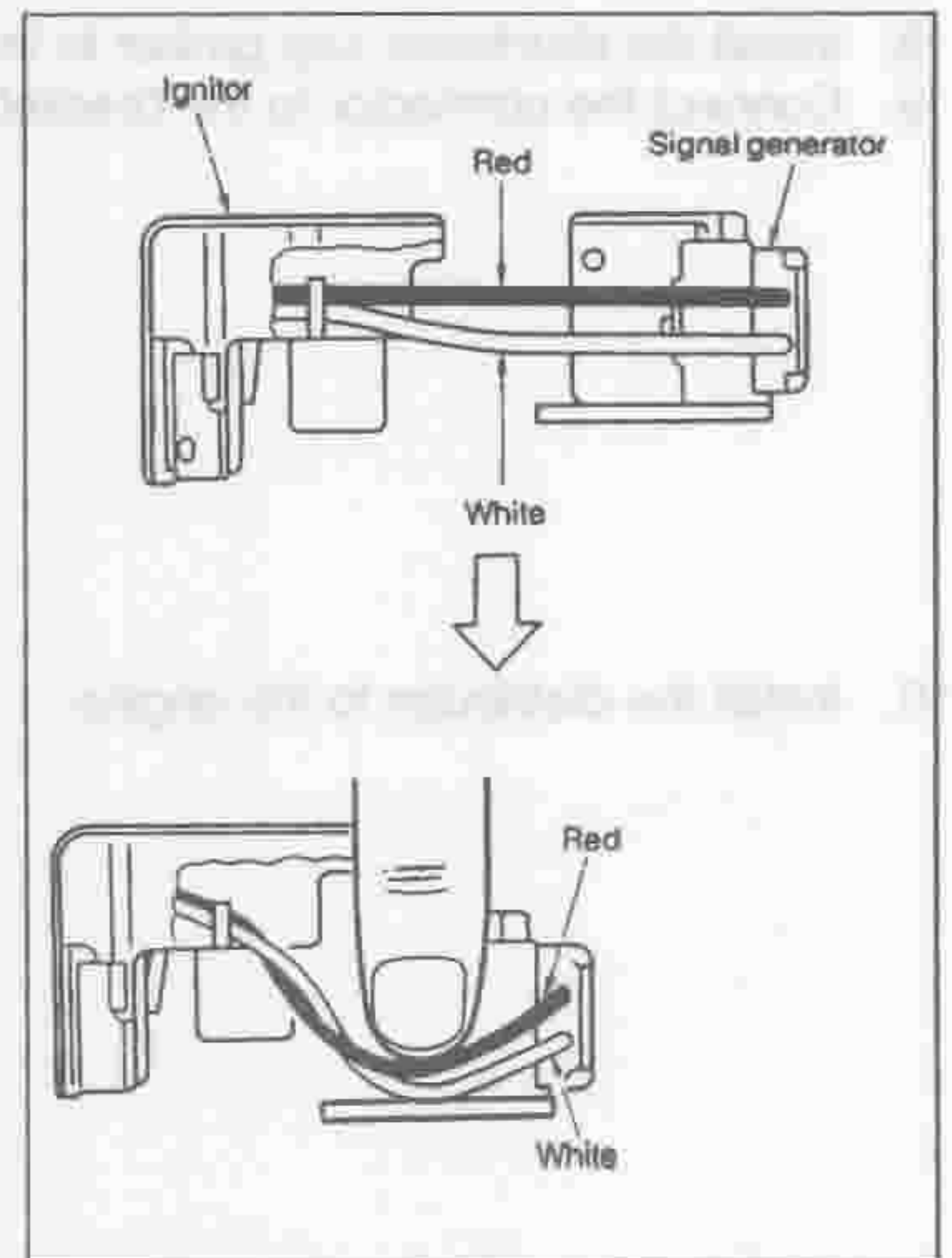
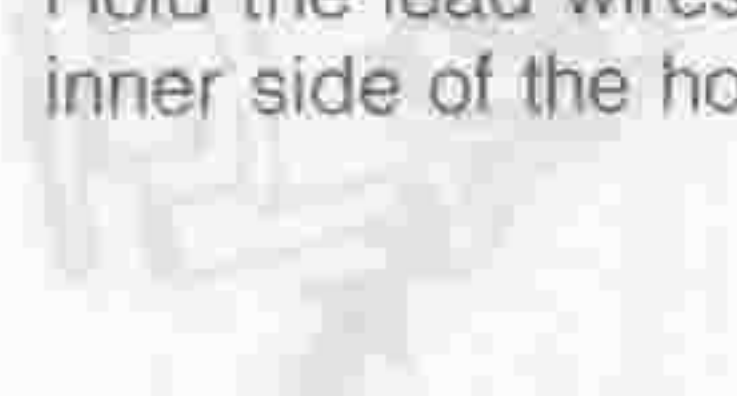
If the air gap fails to conform to the specified value, adjust the air gap again.



LIG00027-00022

#### (10) Installation of ignitor

- ① Install the ignitor in such a position that two lead wires (red & white) are twisted 360° in the clockwise direction as viewed from the ignitor. Hold the lead wires using a clamp provided on the inner side of the housing.

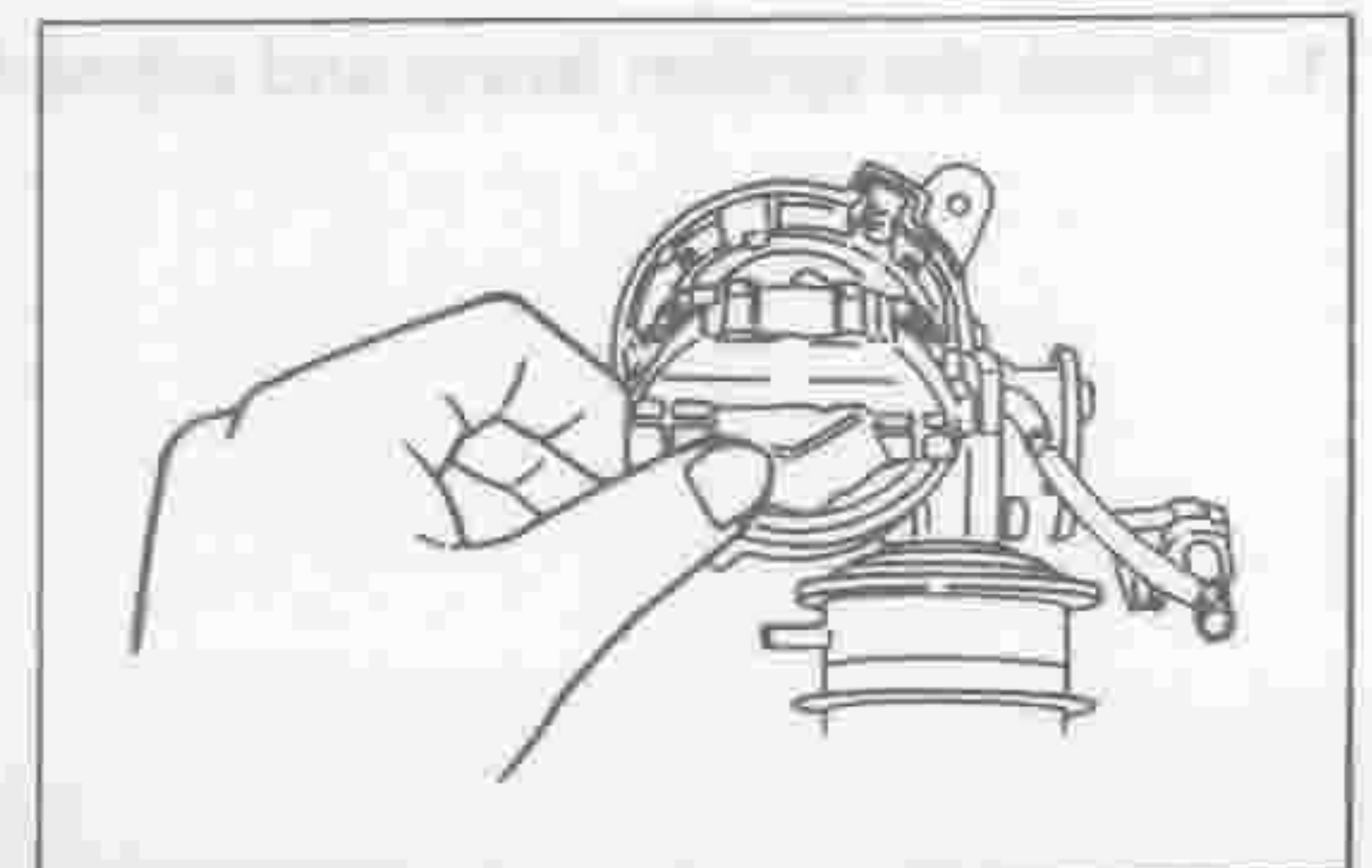
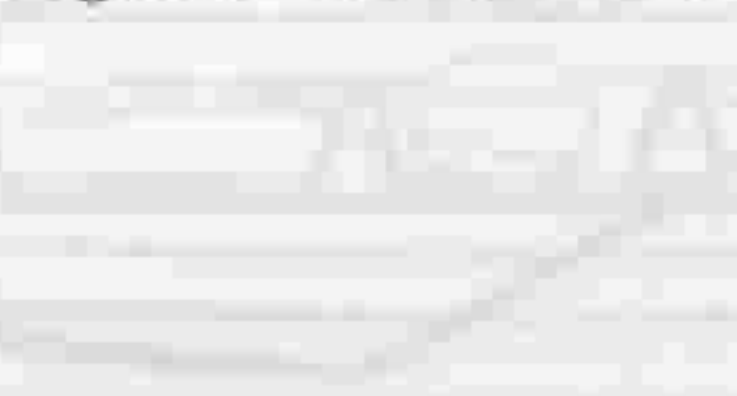


LIG00028-00023

- ② Care should be exercised to keep ignitor's mounting surface clean.

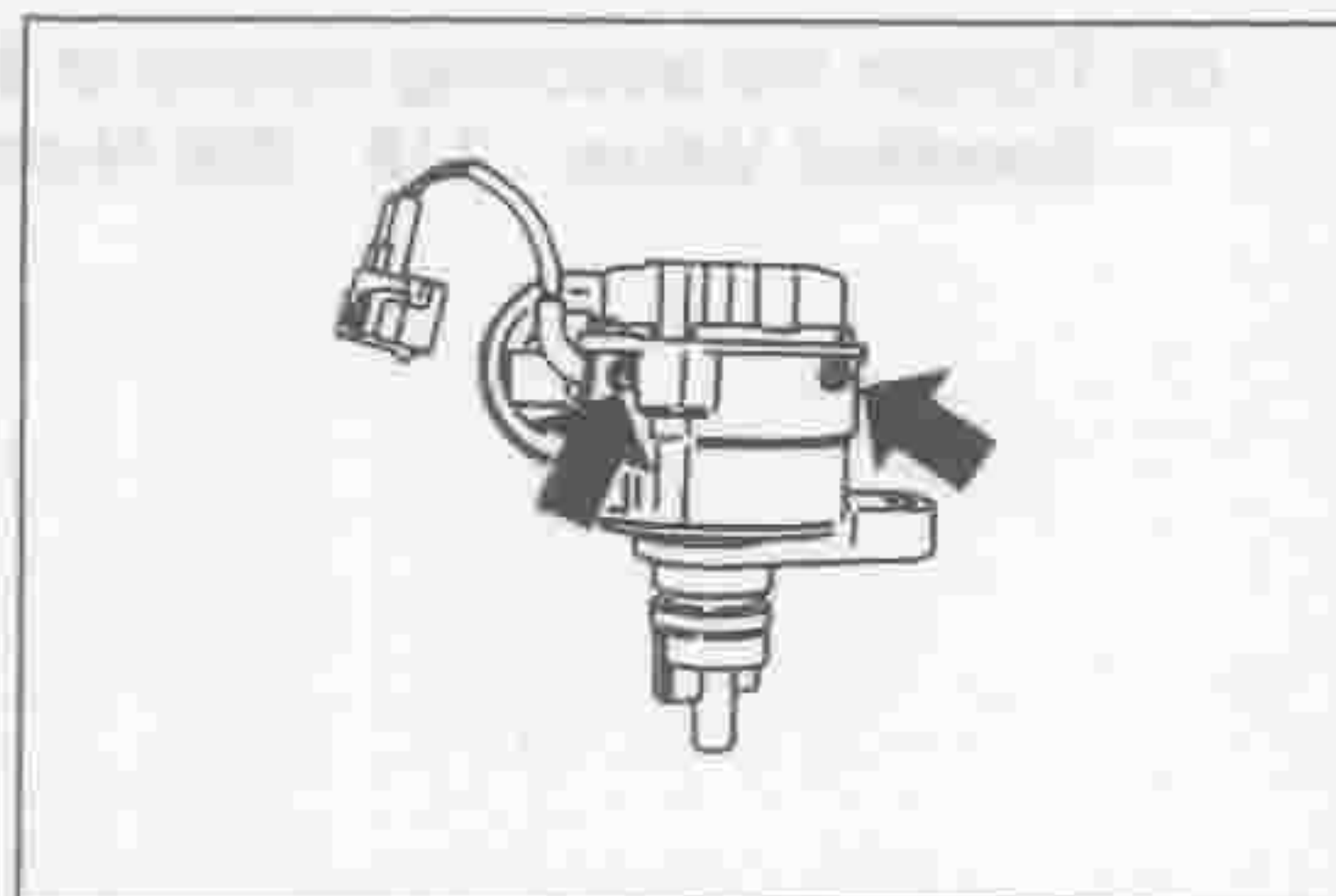
#### NOTE:

- It should be noted that if any foreign object is present between the ignitor and the housing, heat generated by the ignitor will not be radiated properly.



LIG00029-00024

- ③ Tighten the attaching screws of the ignitor.  
Tightening Torque: 157 - 255 N·cm (16 - 26 kgf·cm)

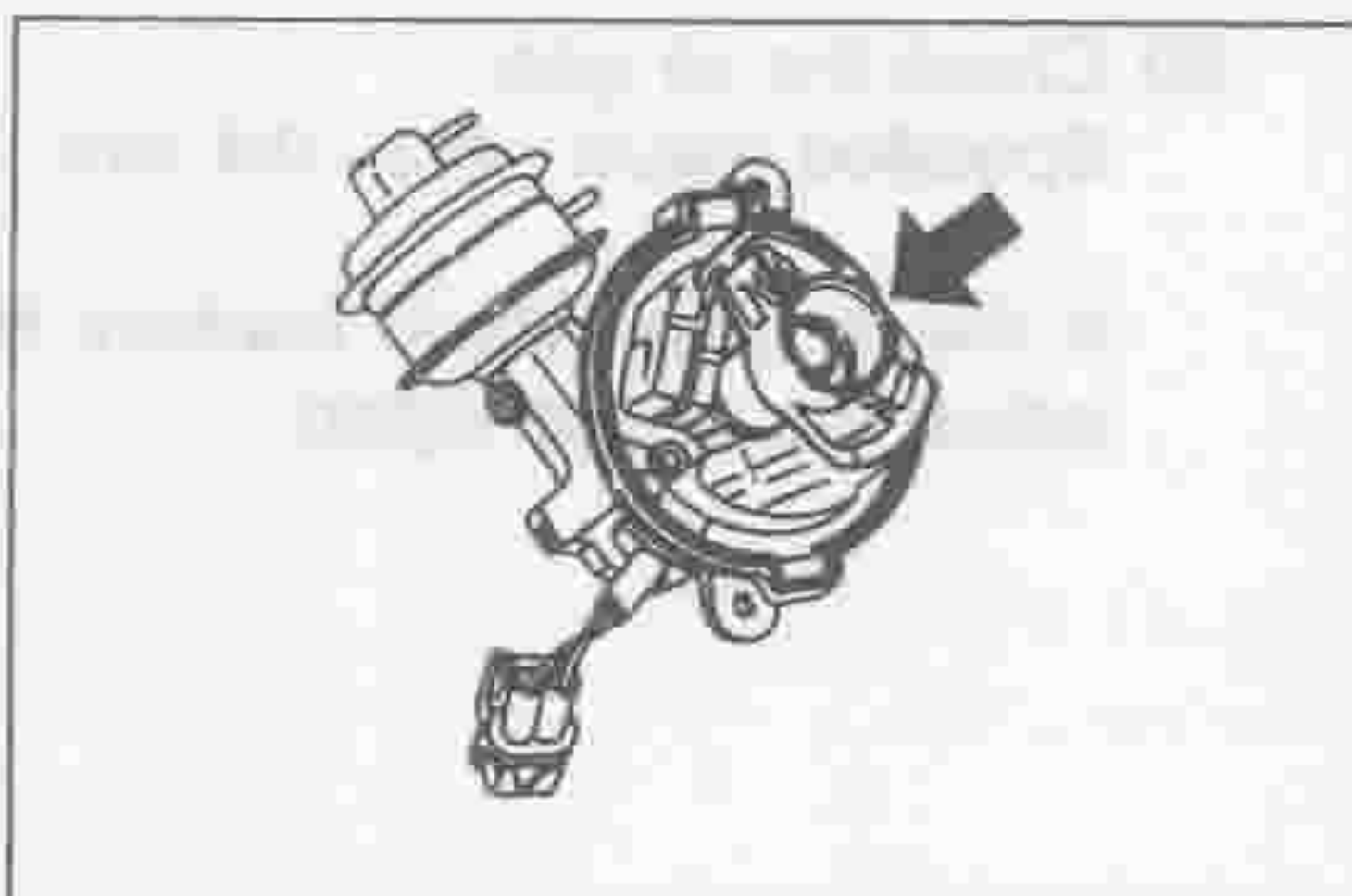


LIG00030-00025

6. Install the rotor.  
7. Install the distributor cap gasket to the distributor body.

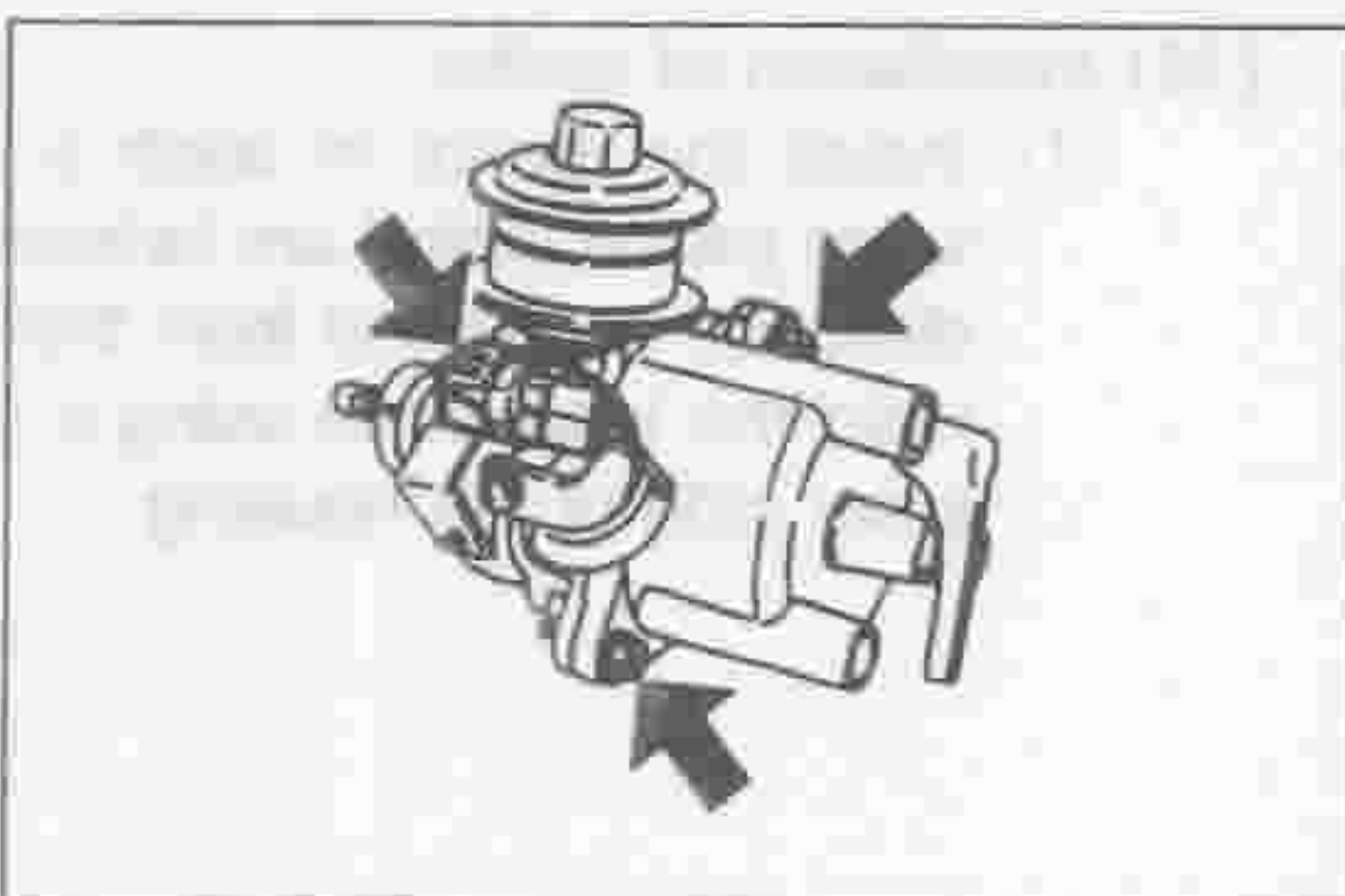
**NOTE:**

- If the gasket is damaged, replace it with a new one.



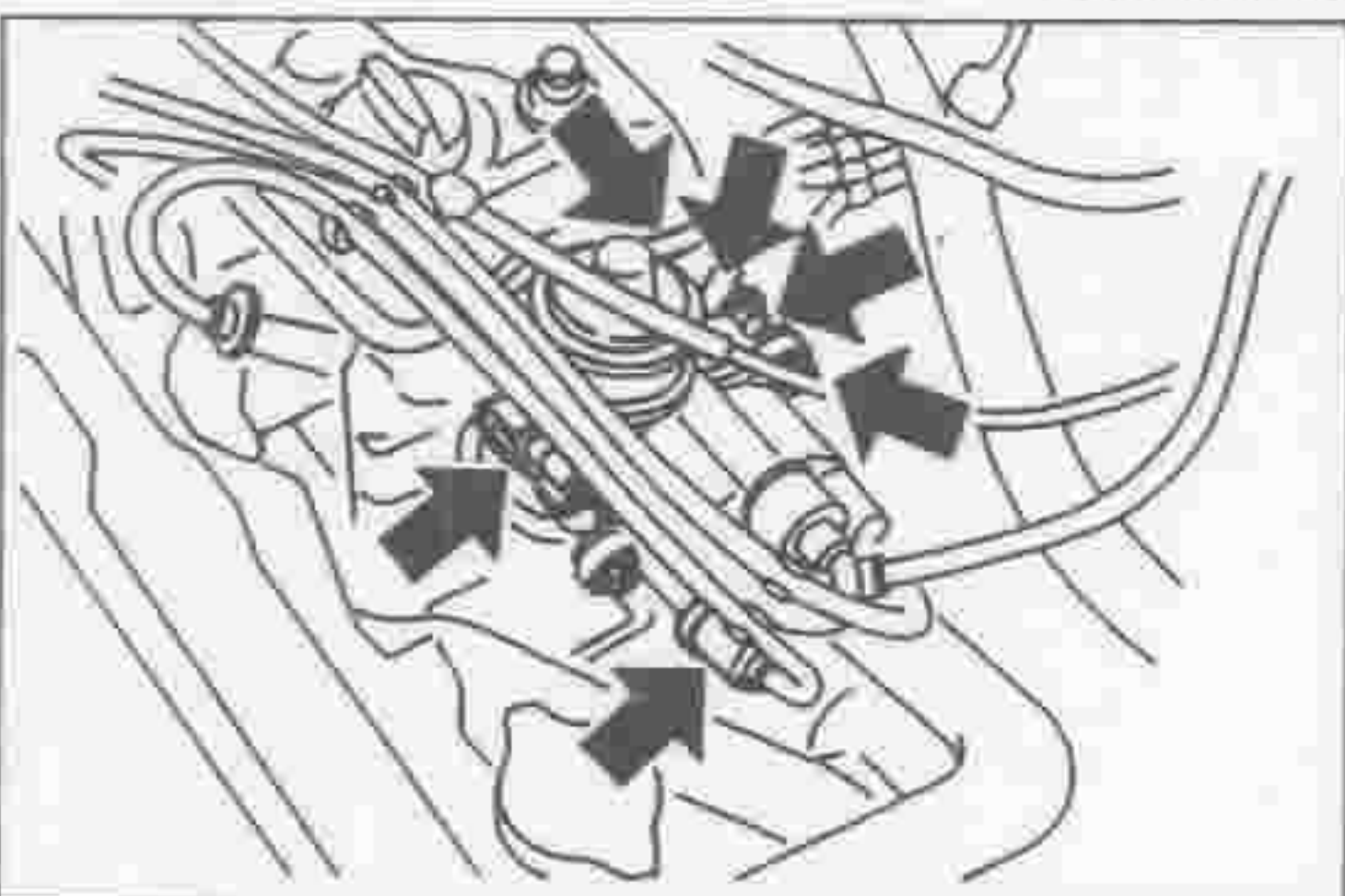
LIG00031-00026

8. Install the distributor cap gasket to the distributor body.  
9. Connect the connector to the bracket.



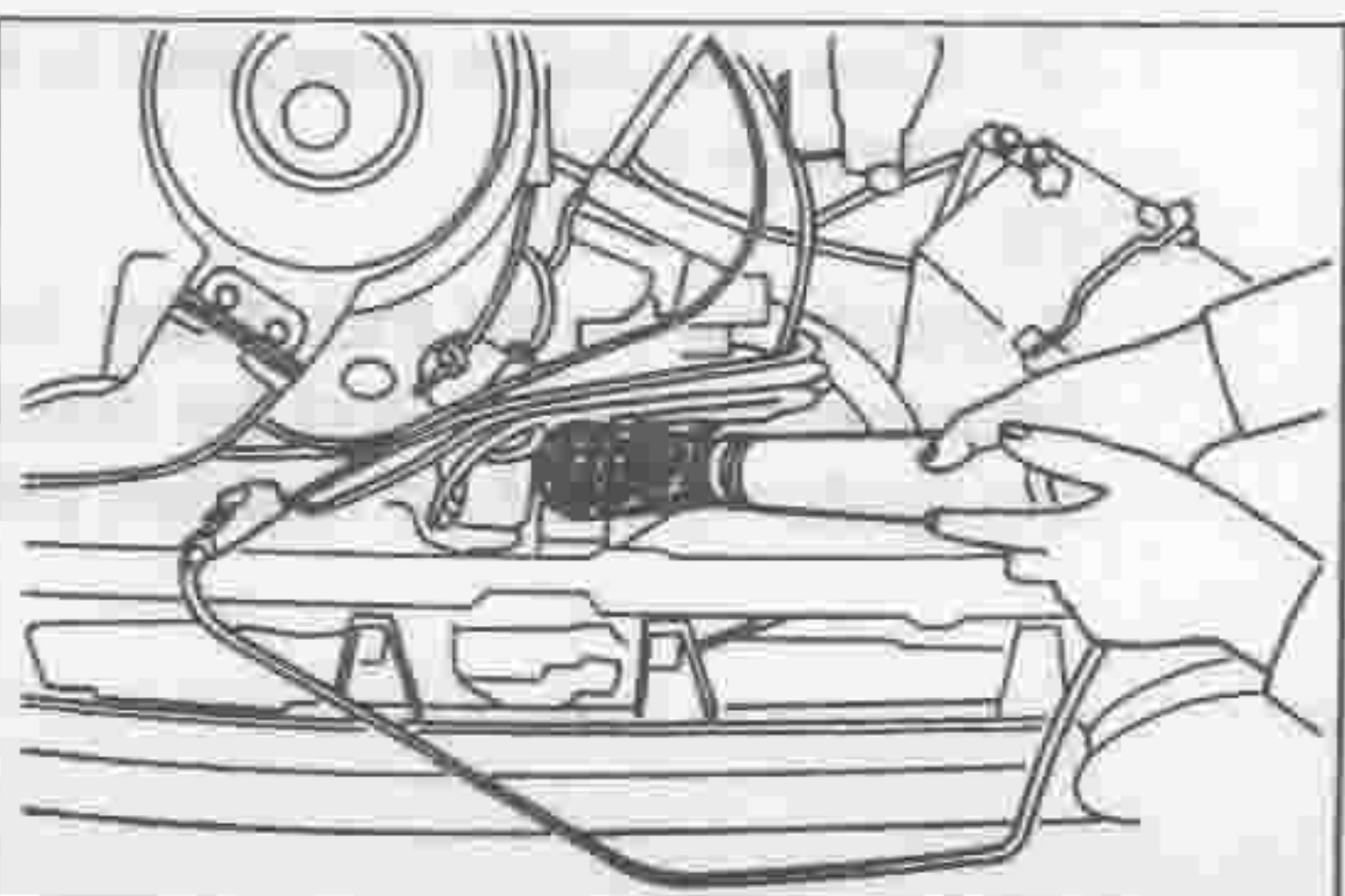
LIG00032-00027

10. Install the distributor to the engine.



LIG00033-00028

11. Check the ignition timing and adjust it, as required.



LIG00034-00029

## INSPECTION &amp; ADJUSTMENT OF AIR GAP

[ED-20, EF-EL Engine]

1. Remove the distributor cap.



2. Pull out the rotor.



3. Turn the crankshaft, until the signal rotor faces toward the signal generator.
4. At all three points, check to see if the air gap between the signal generator and the signal rotor conforms to the specified value.

Specified Air Gap: 0.2 - 0.4 mm

If the air gap fails to conform to the specified value, adjust the air gap.

5. Adjustment of air gap

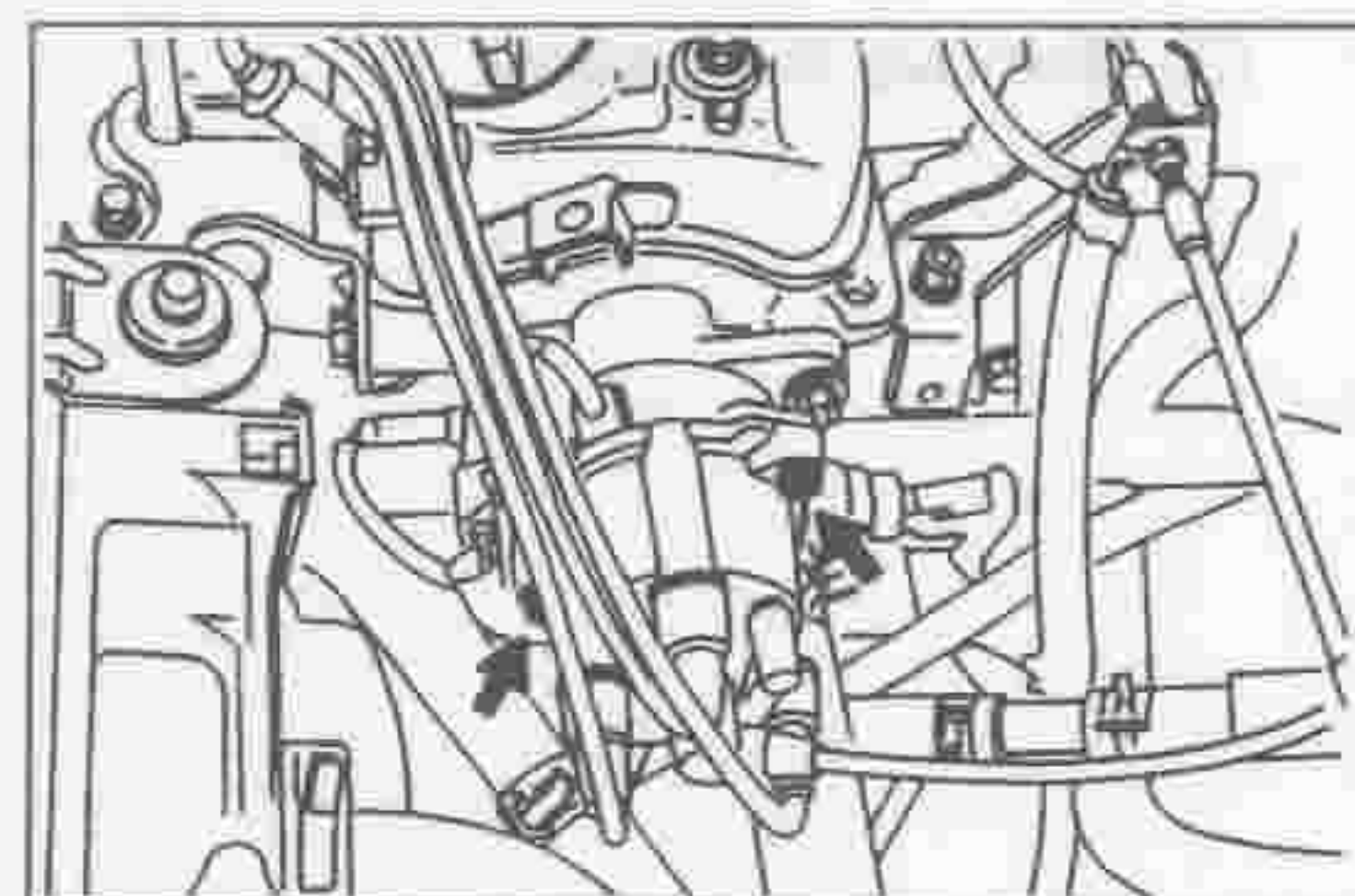
(1) Removal of distributor

- ① Disconnect the connector from the distributor.
- ② Remove the distributor retaining bolt.
- ③ Pull out the distributor.

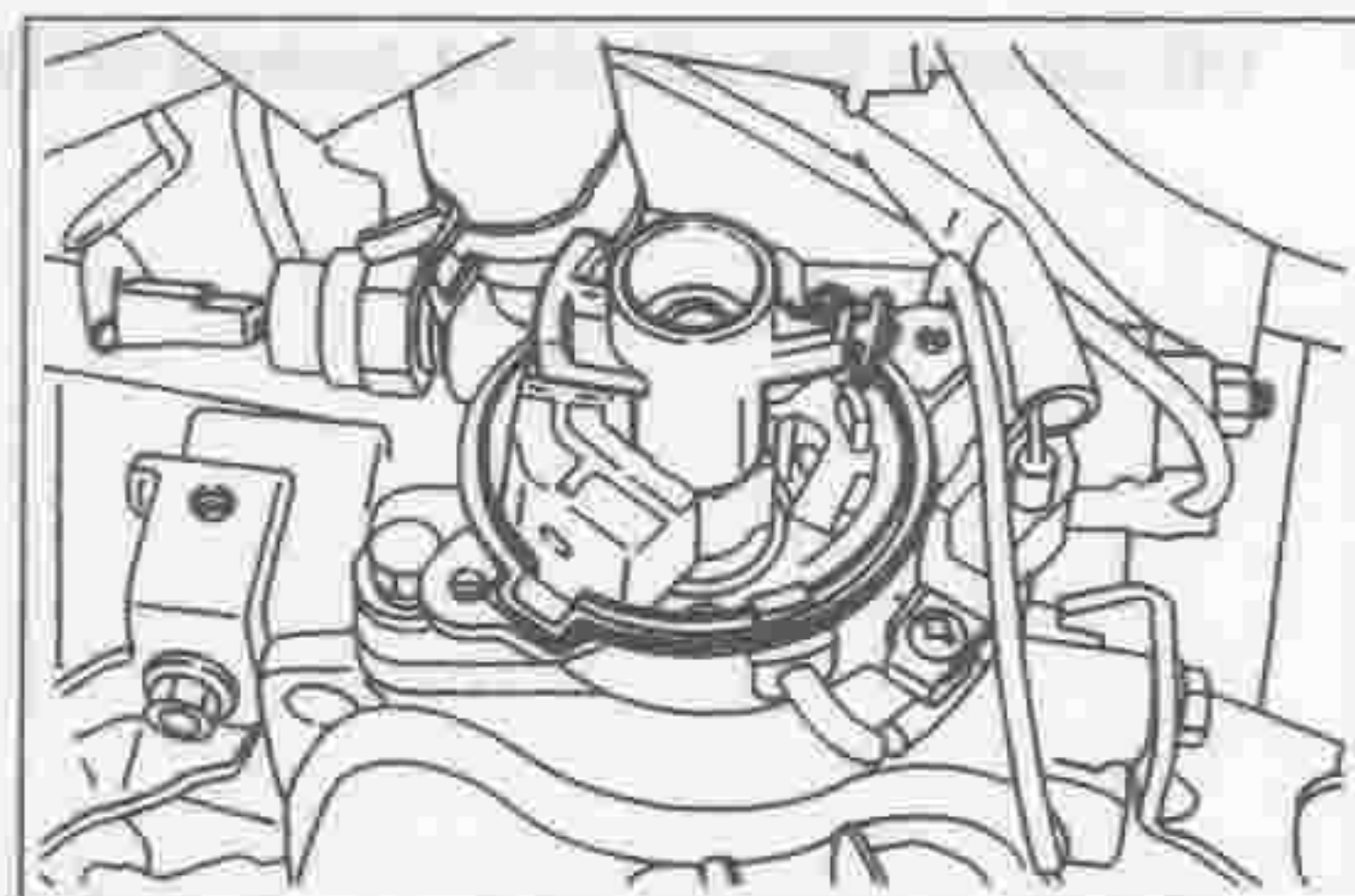
NOTE:

- Since the oil flows out, place a suitable cloth or the like under the connecting section of the distributor and the cylinder head.

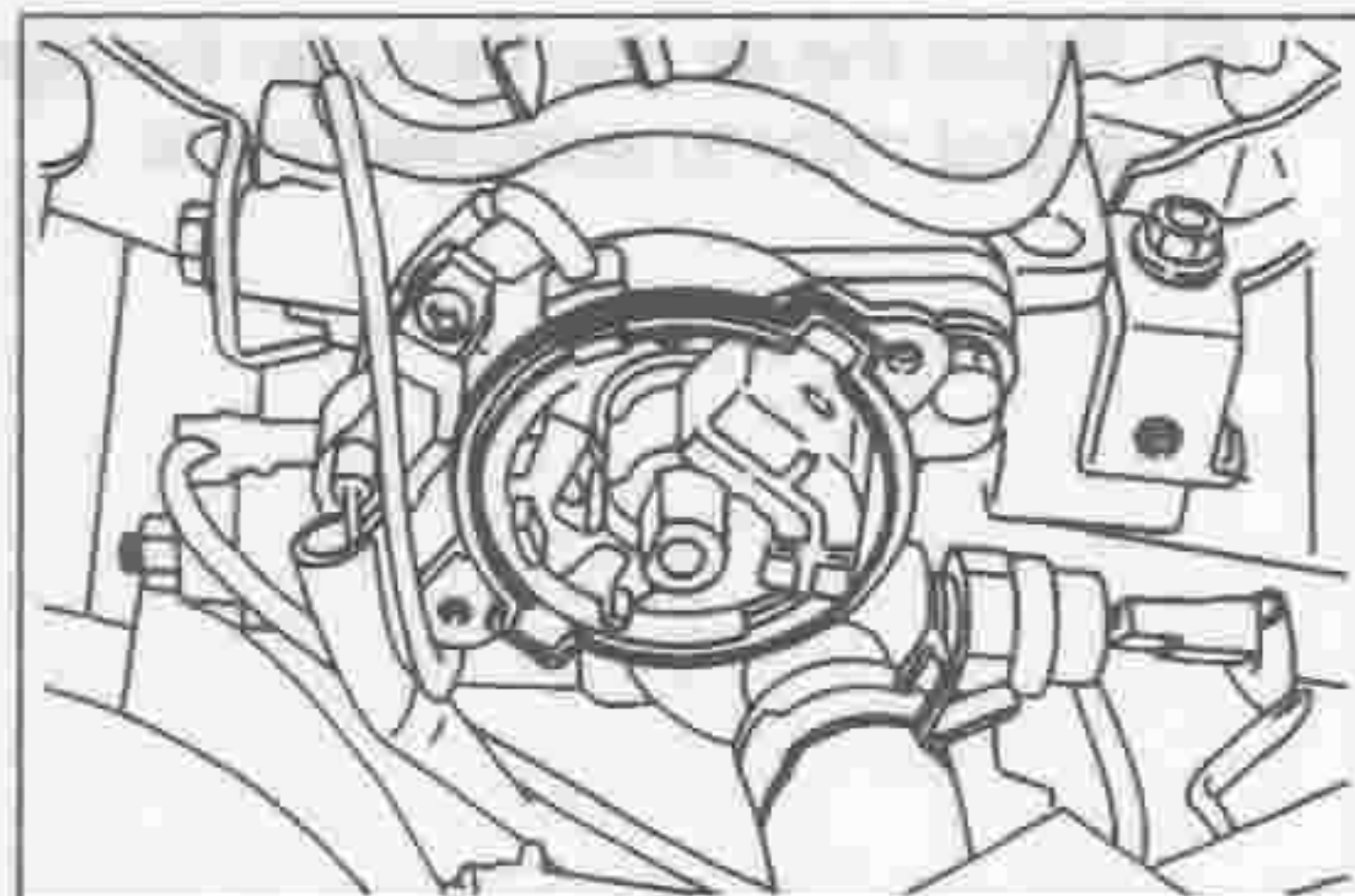
- (2) Remove the signal generator connector from the distributor.



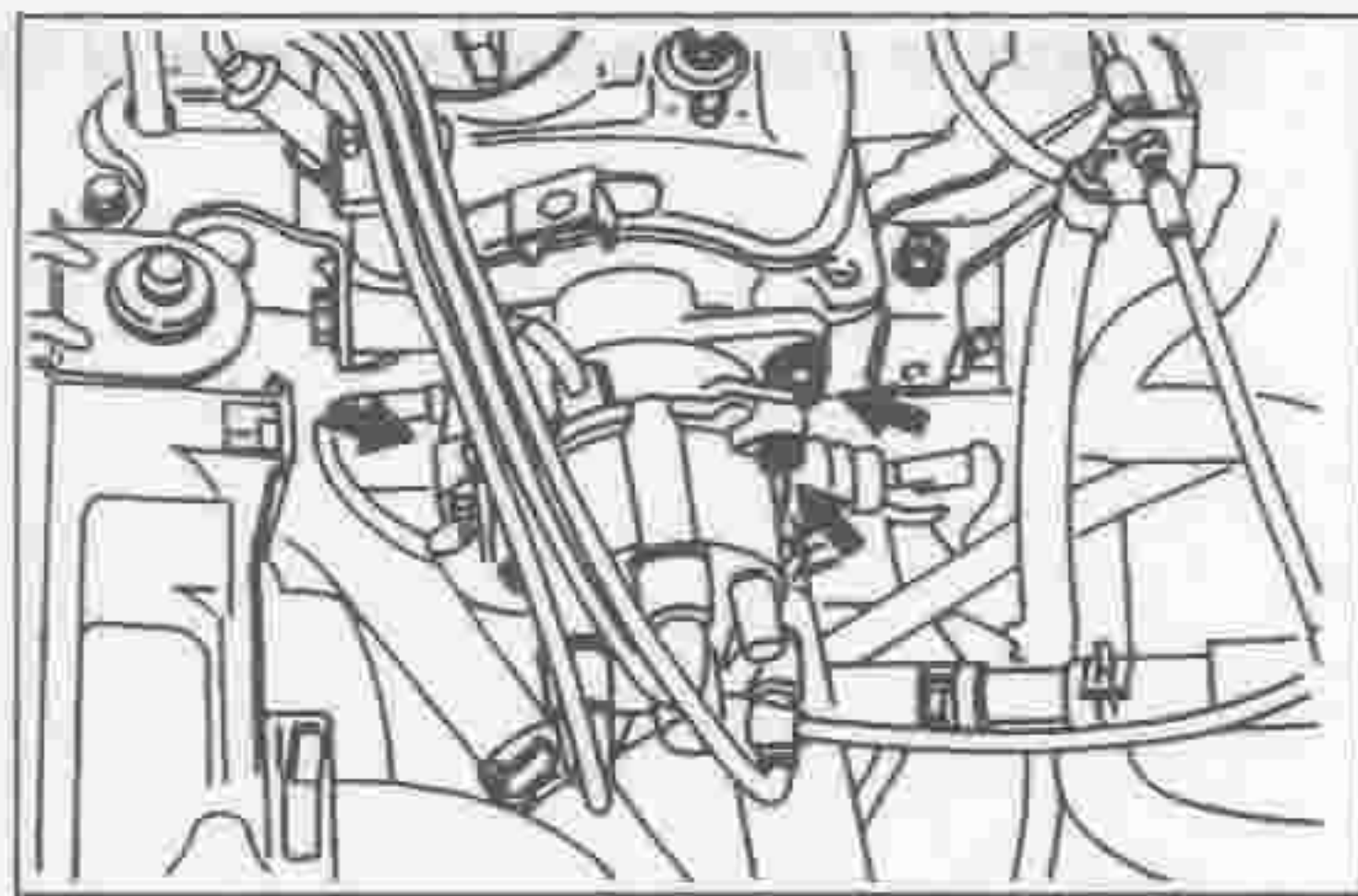
LIG00035-00030



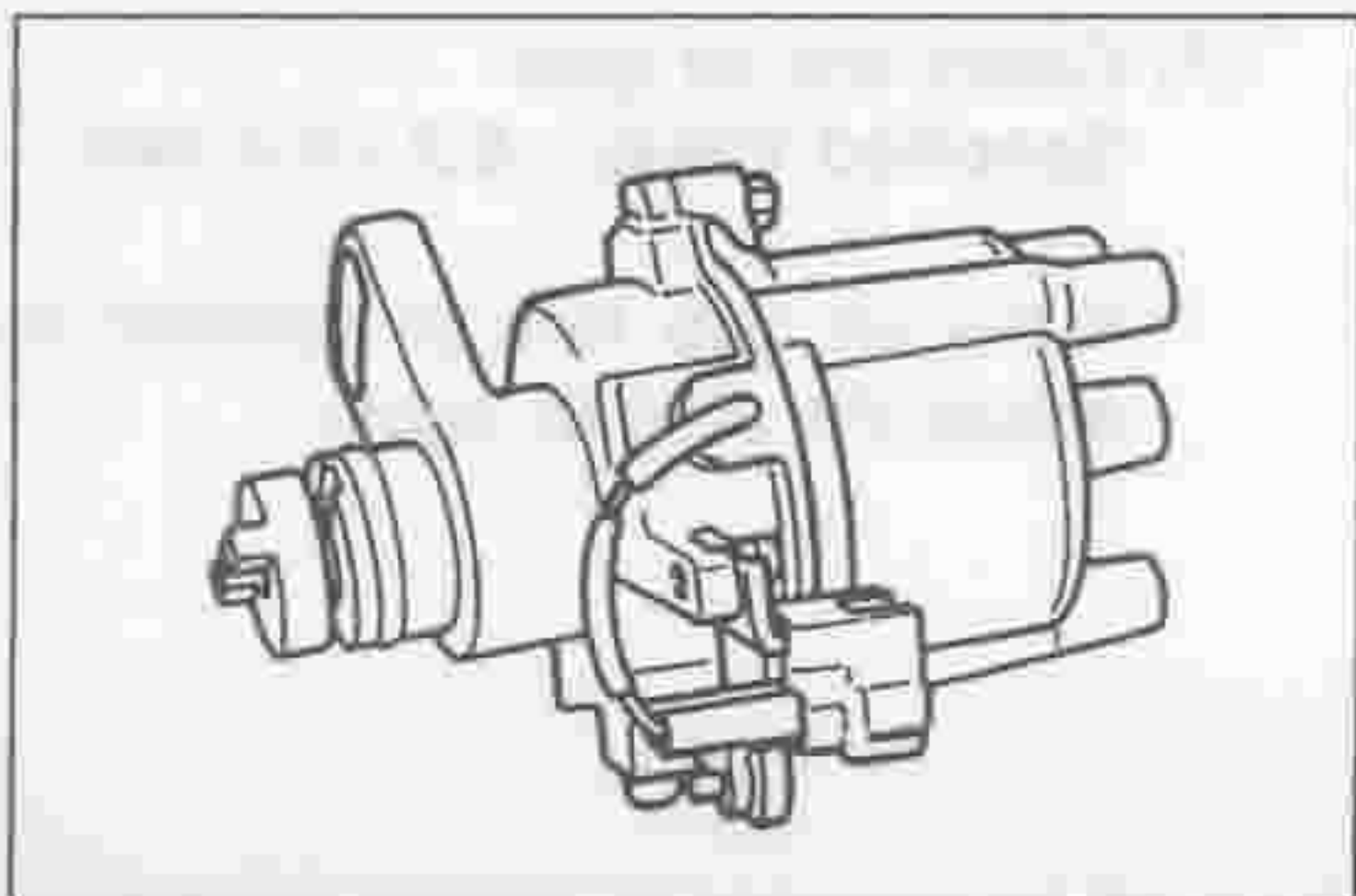
LIG00036-00031



LIG00037-00032

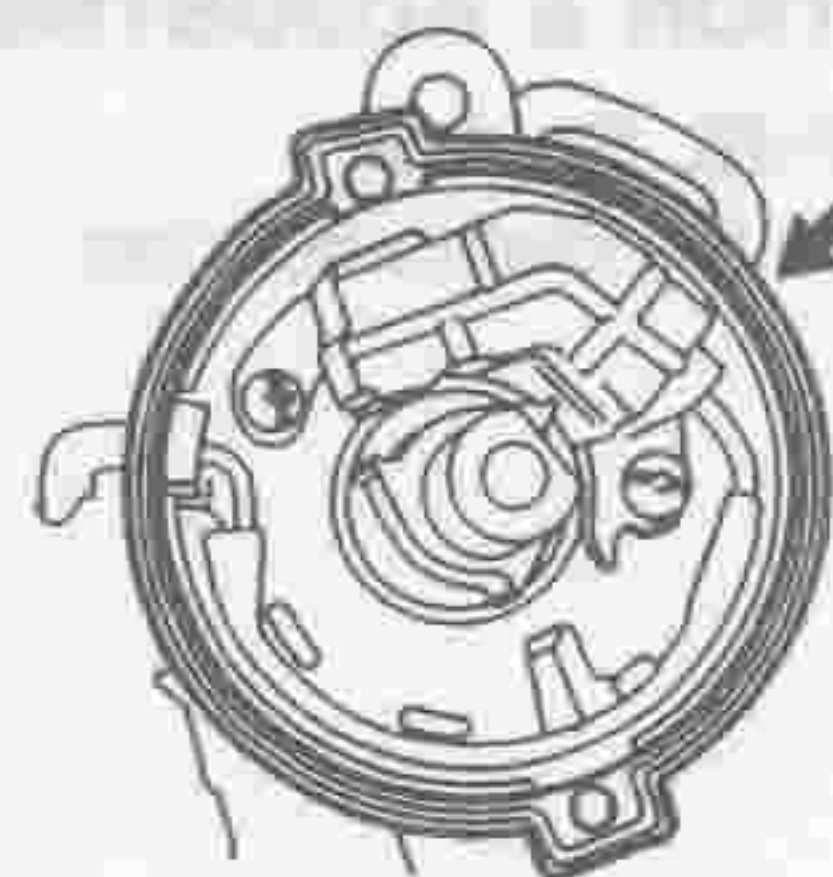


LIG00038-00033



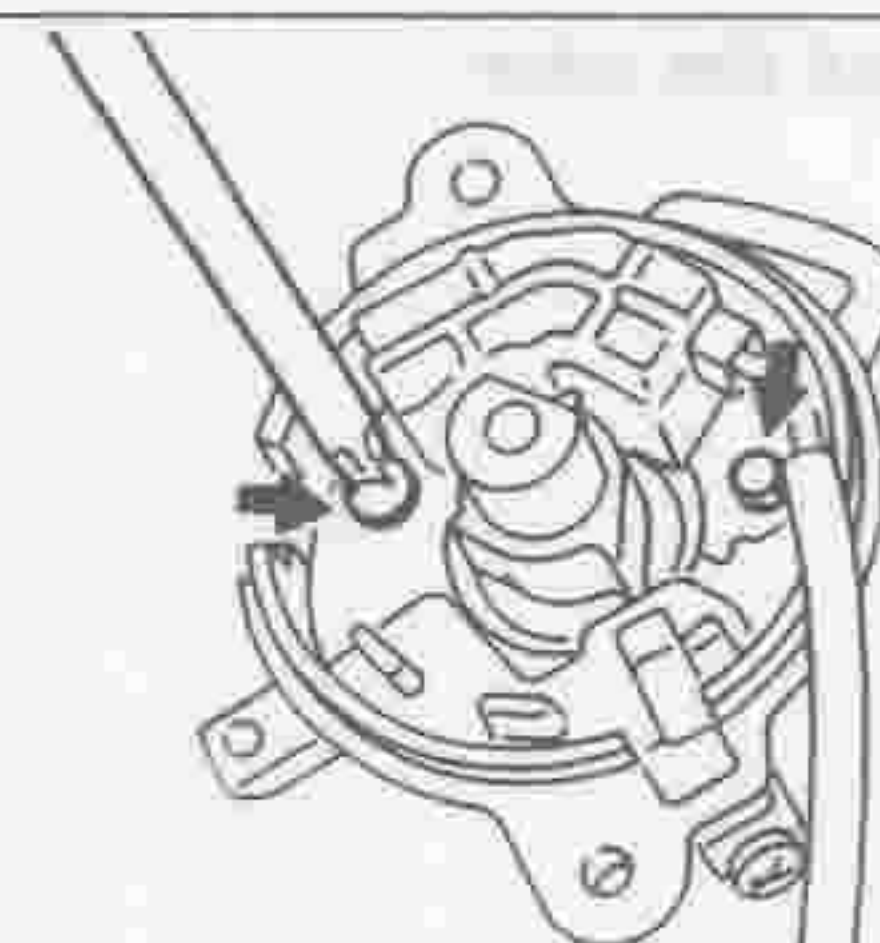
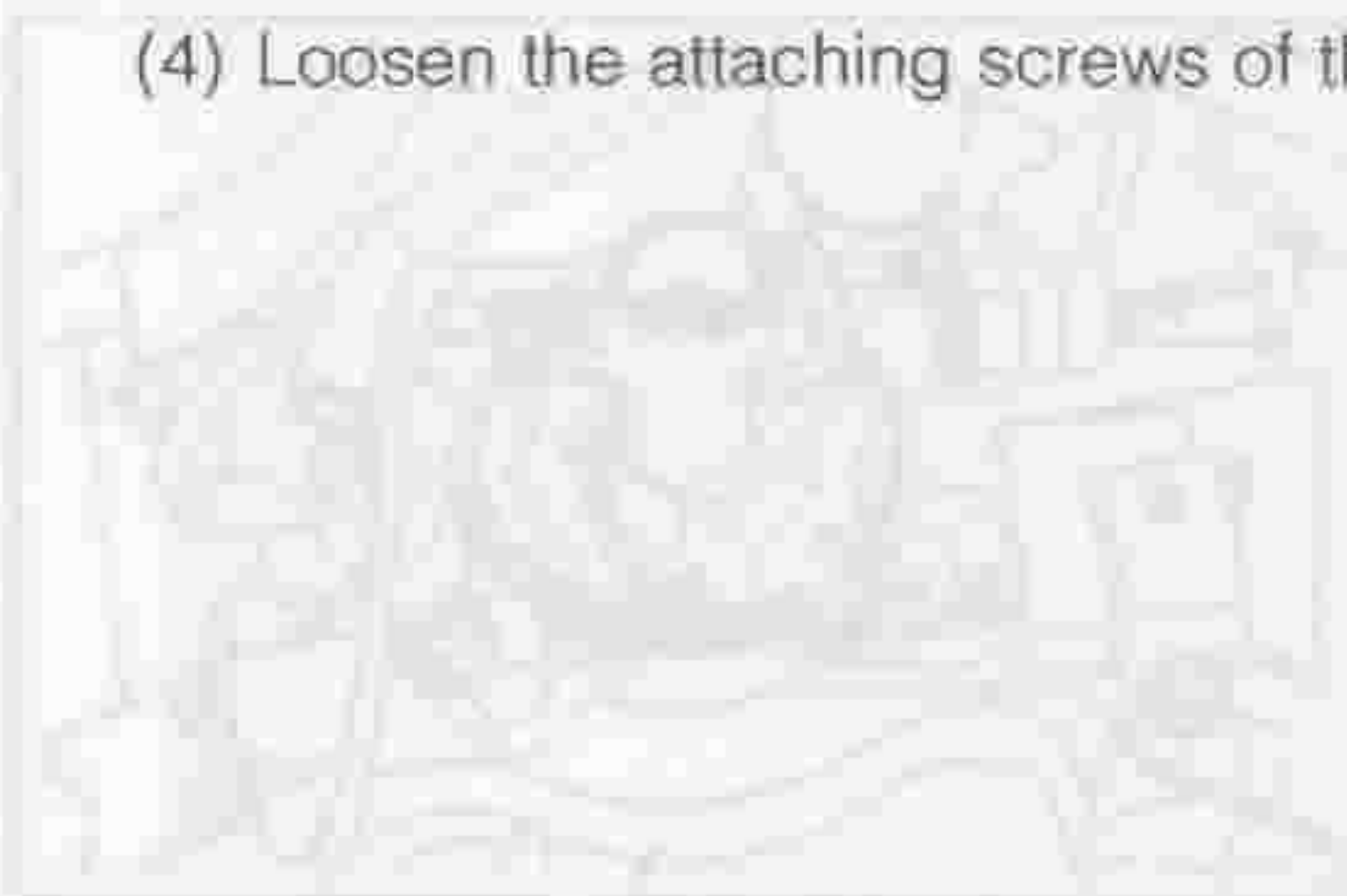
LIG00039-00034

(3) Remove the gasket.



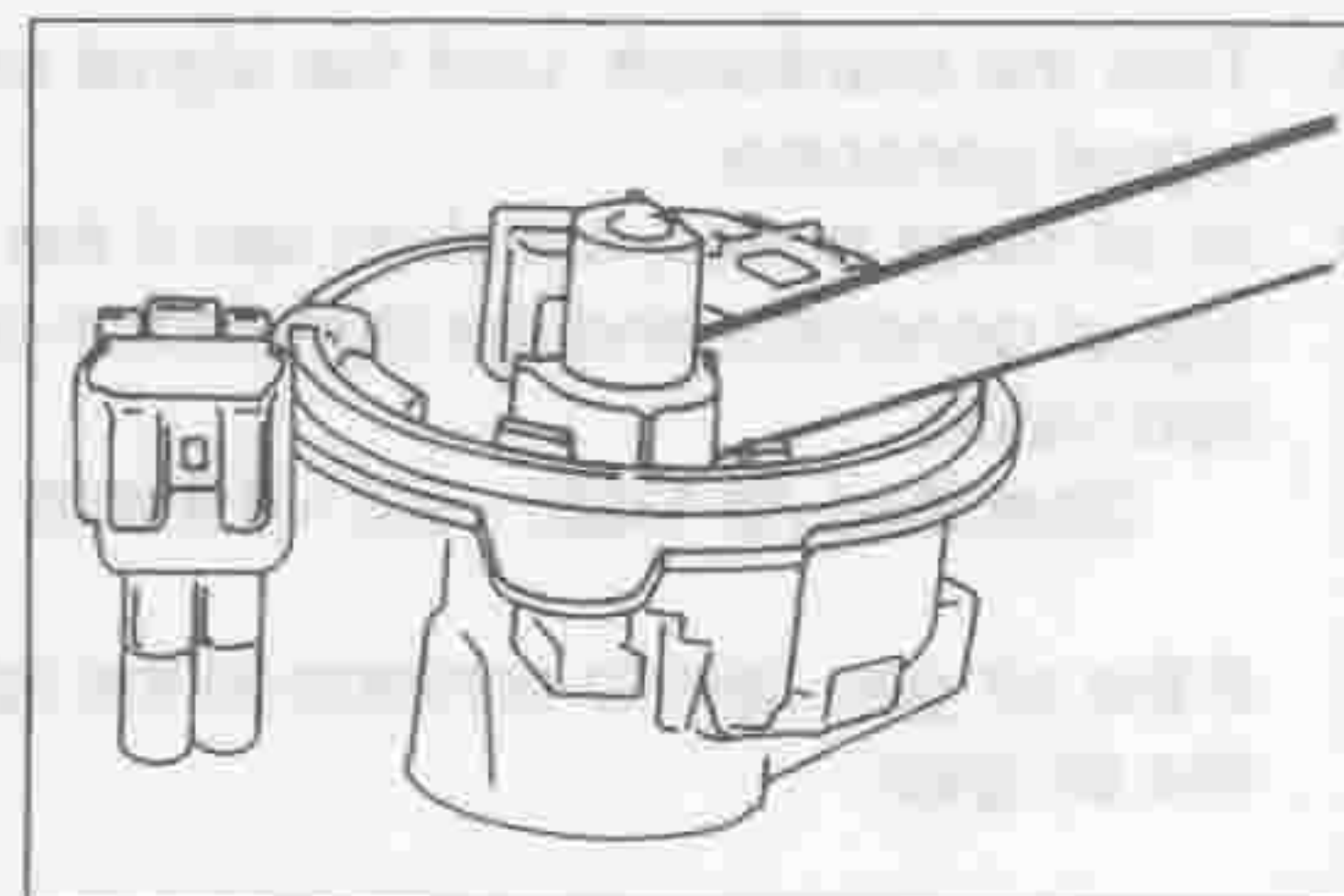
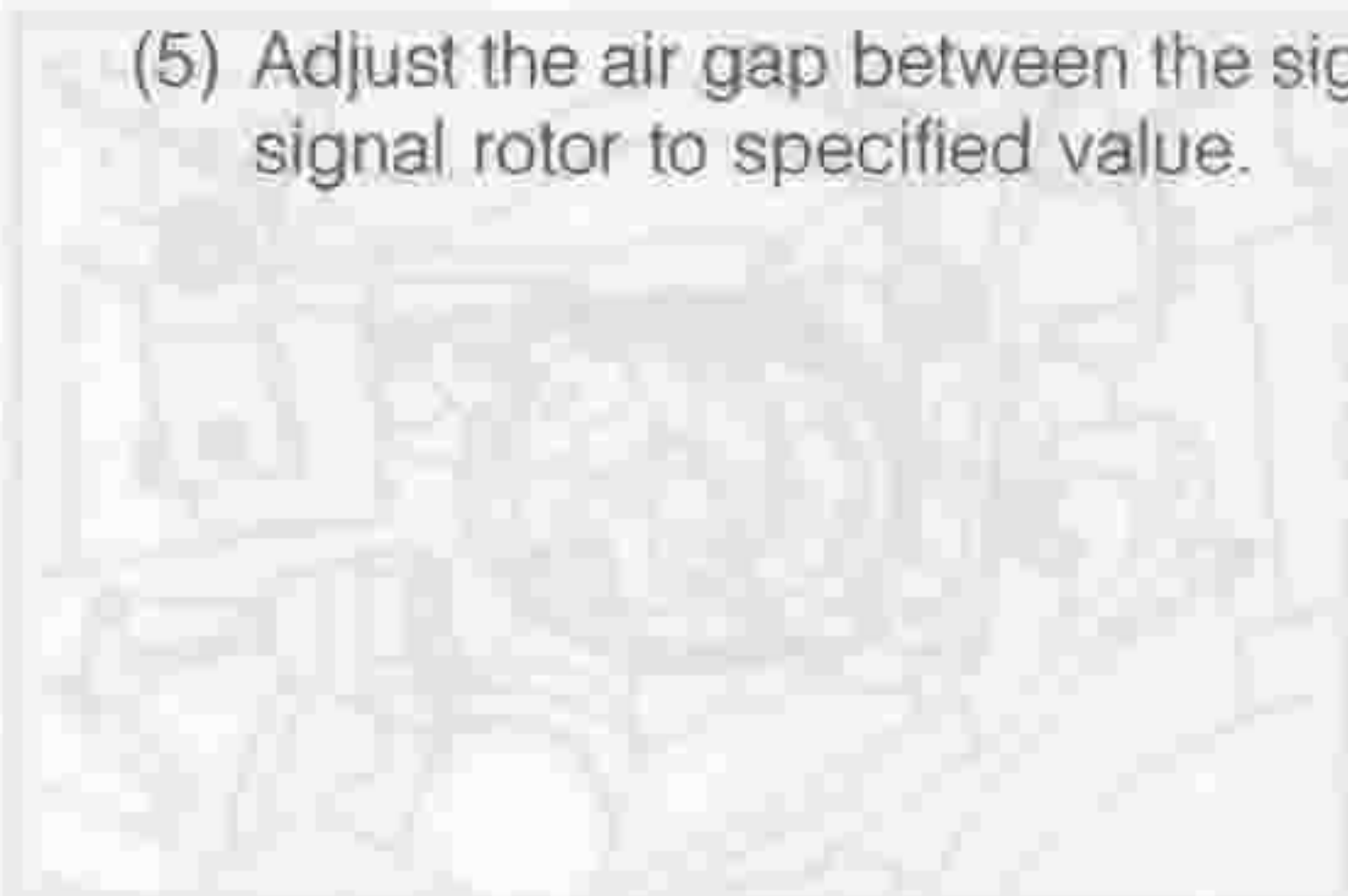
LIG00040-00035

(4) Loosen the attaching screws of the signal generator.



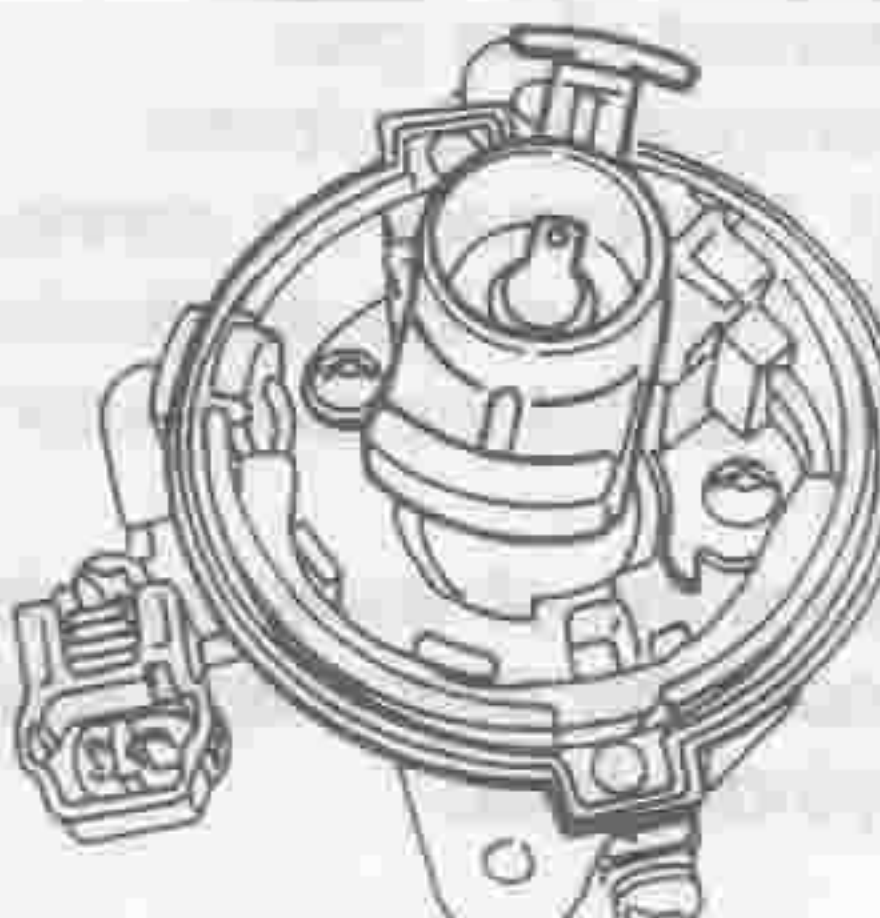
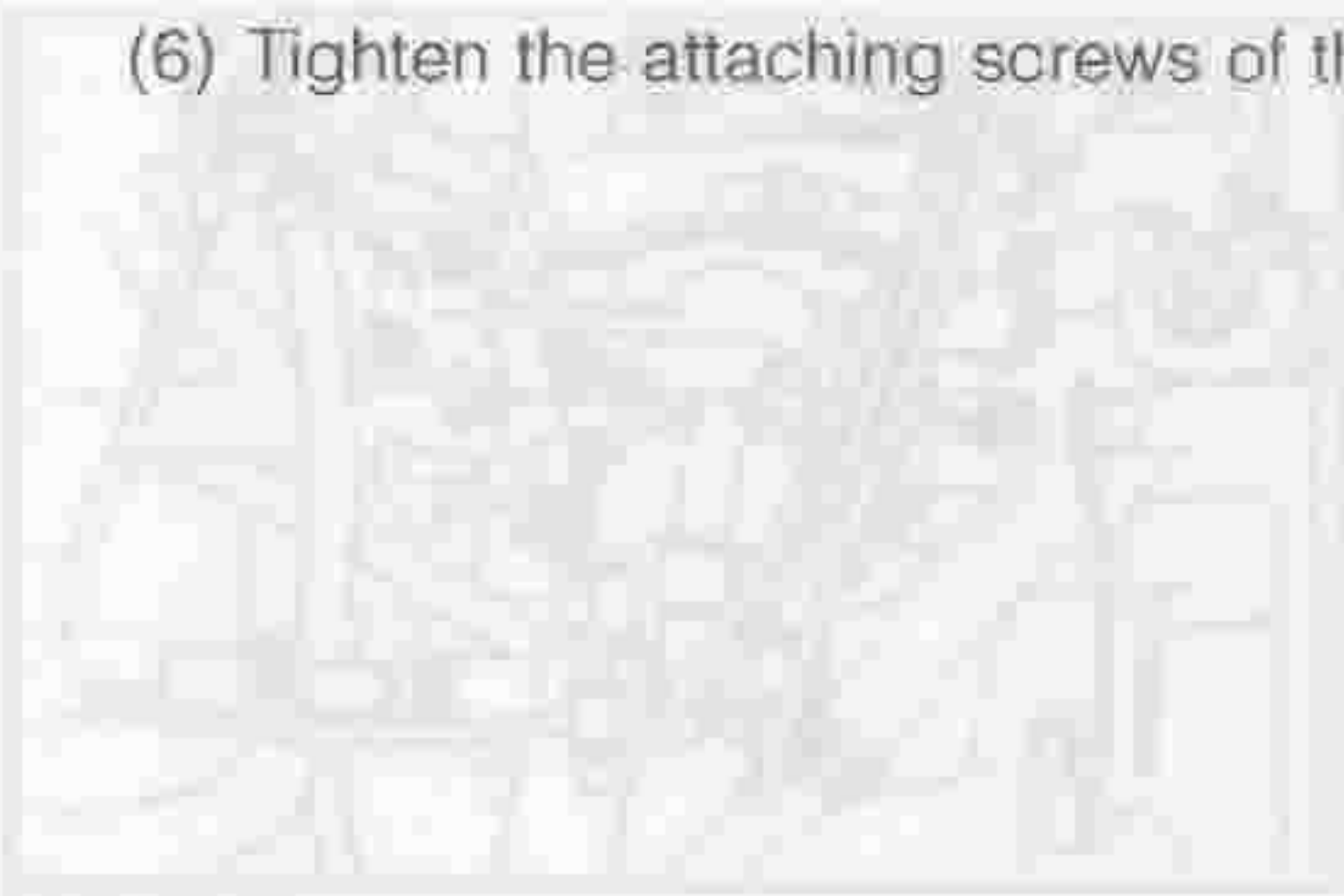
LIG00041-00036

(5) Adjust the air gap between the signal generator and the signal rotor to specified value.



LIG00042-00037

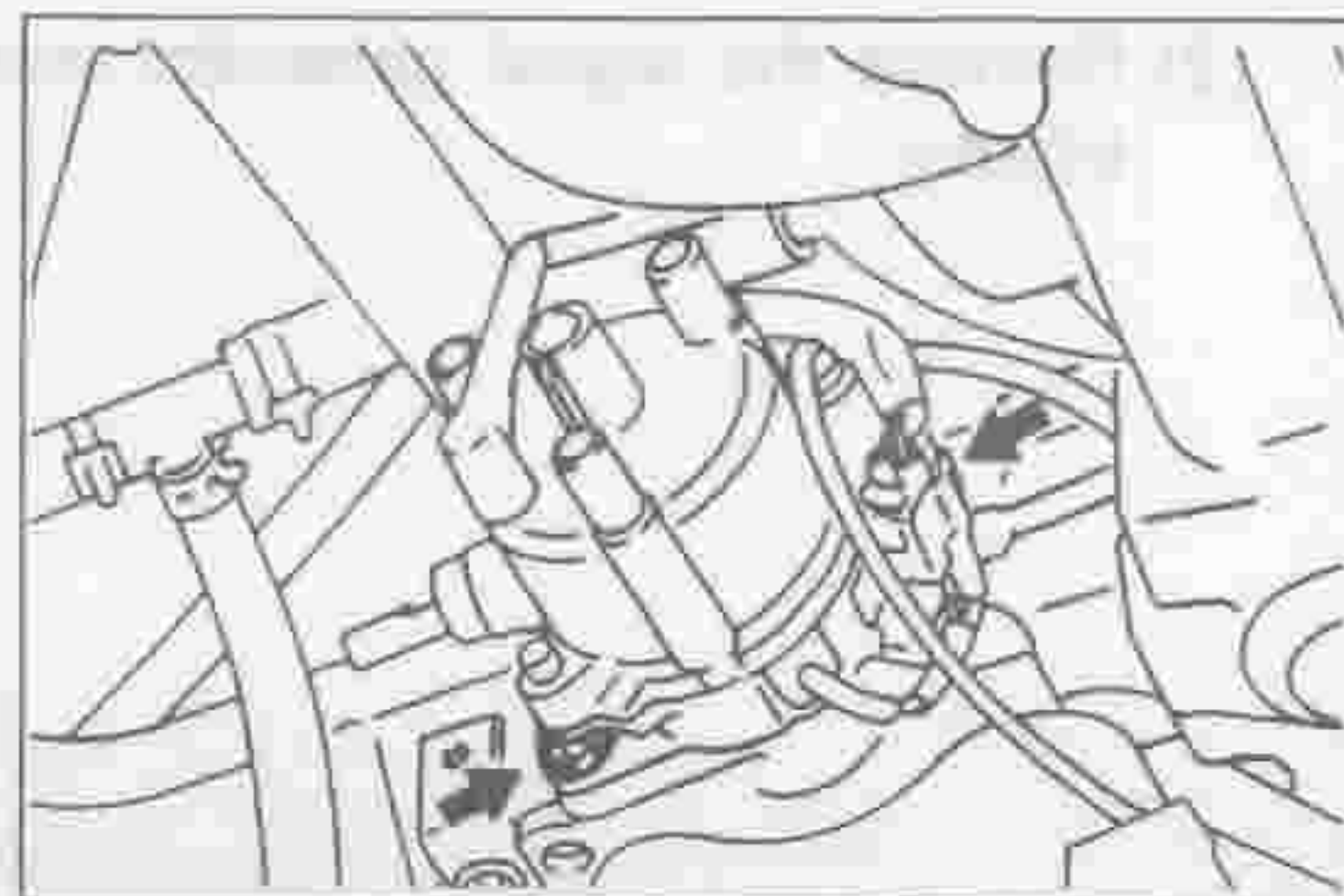
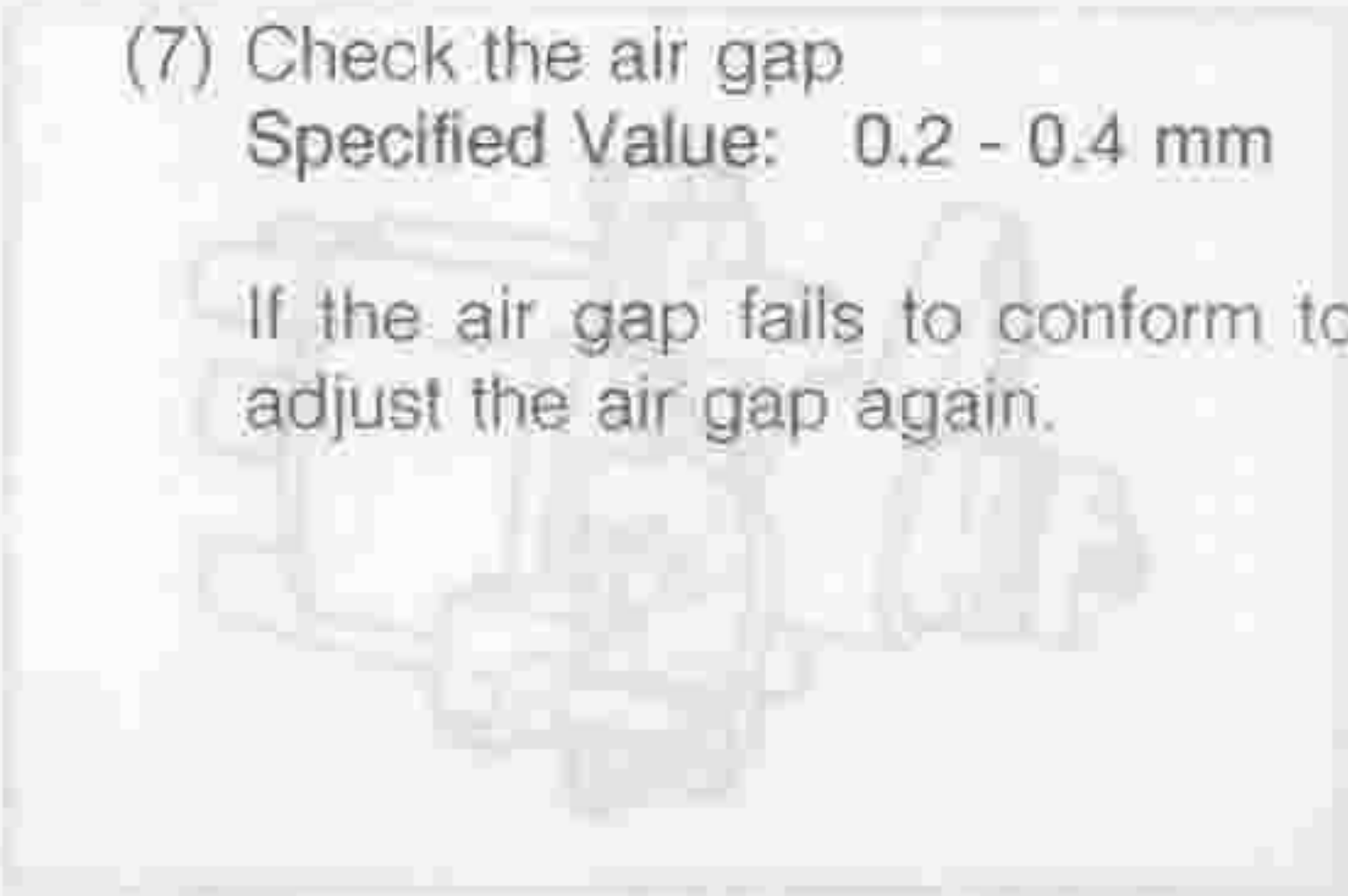
(6) Tighten the attaching screws of the signal generator.



LIG00043-00038

(7) Check the air gap  
Specified Value: 0.2 - 0.4 mm

If the air gap fails to conform to the specified value,  
adjust the air gap again.

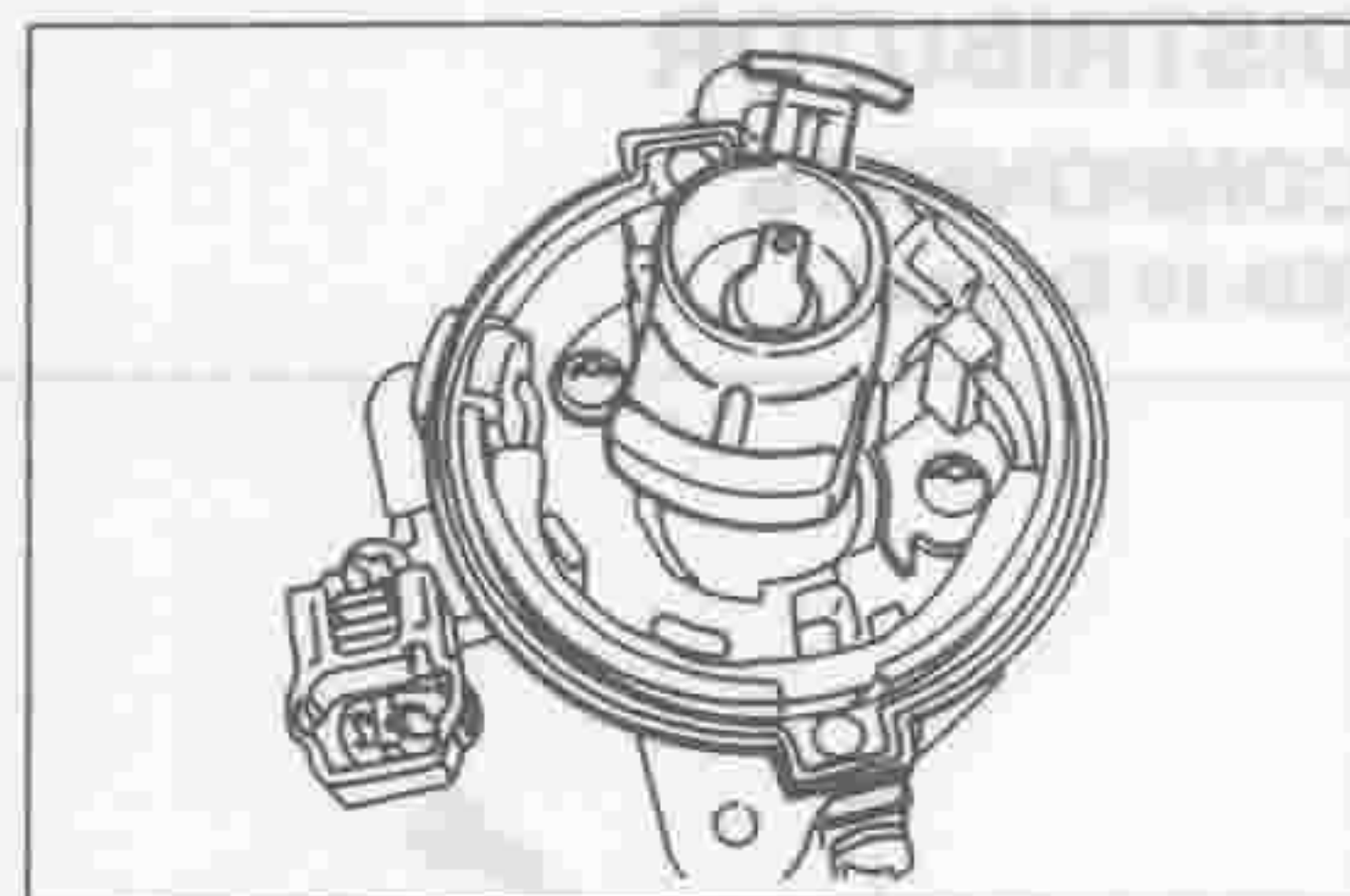


LIG00044-00039

- (8) Install the signal rotor.
- (9) Install the distributor cap gasket to the distributor body.

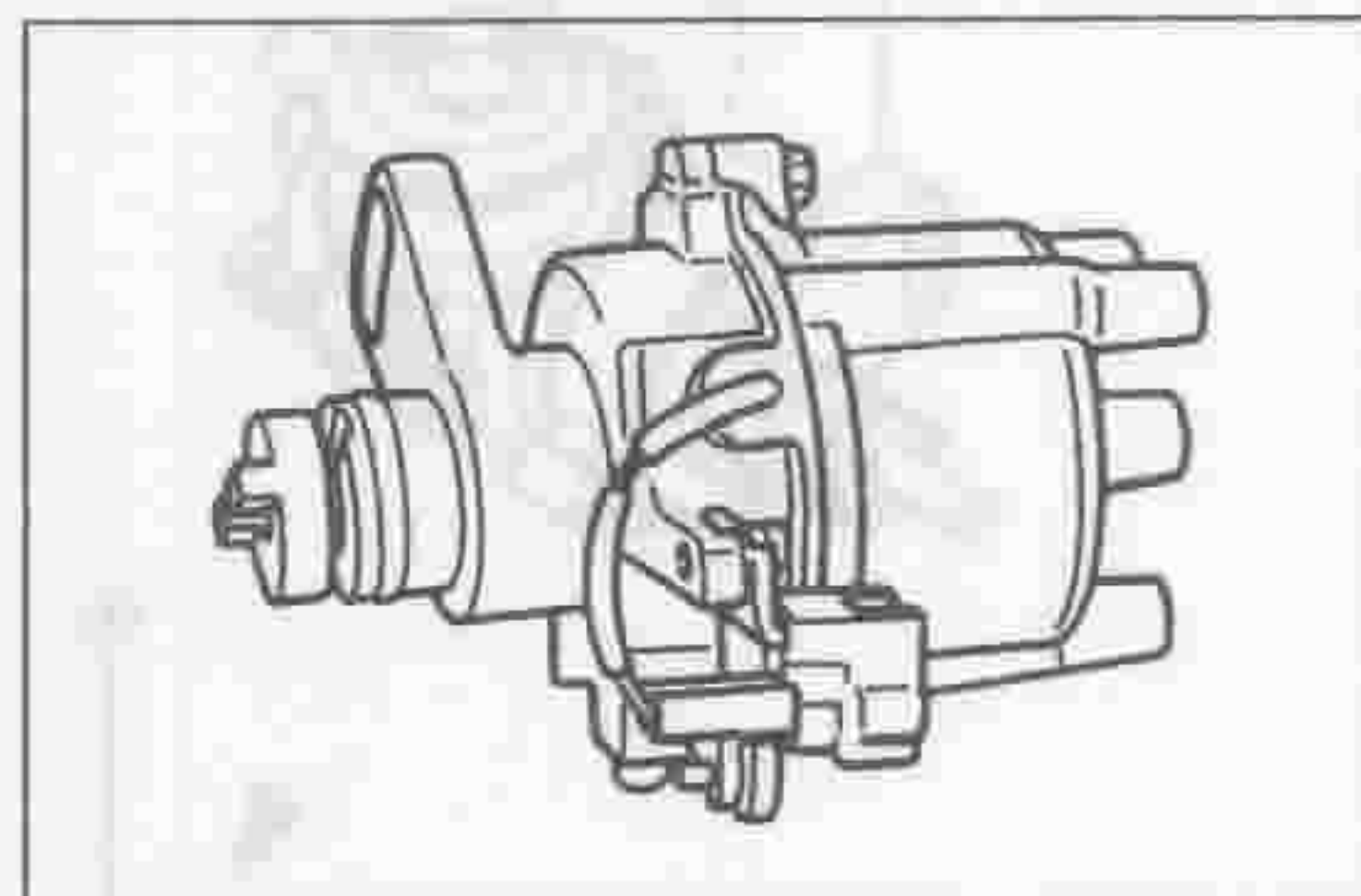
**NOTE:**

- If the gasket is damaged, replace it with a new one.



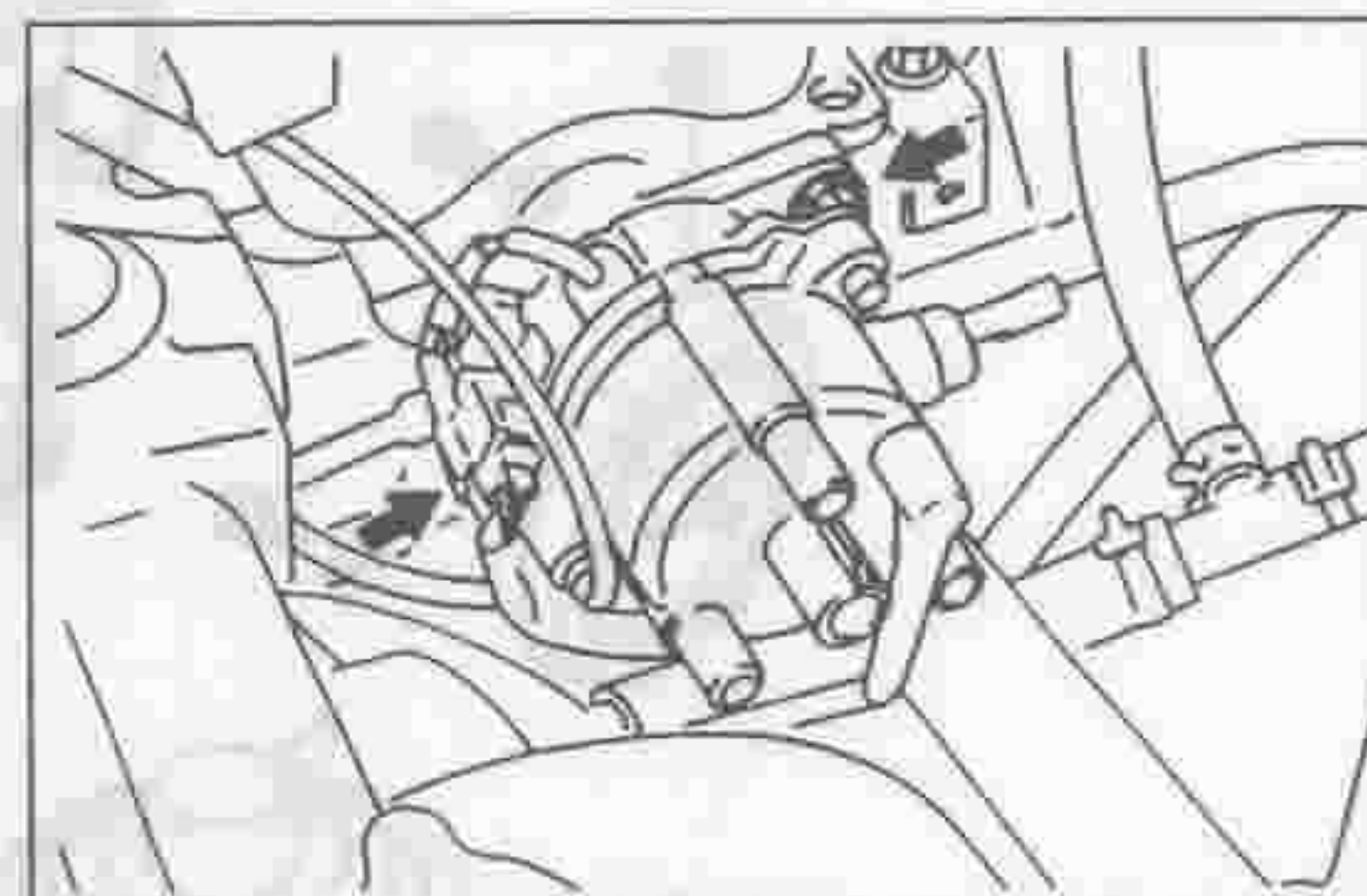
LIG00045-00040

- (10) Install the distributor cap.
- (11) Connect the connector to the bracket.



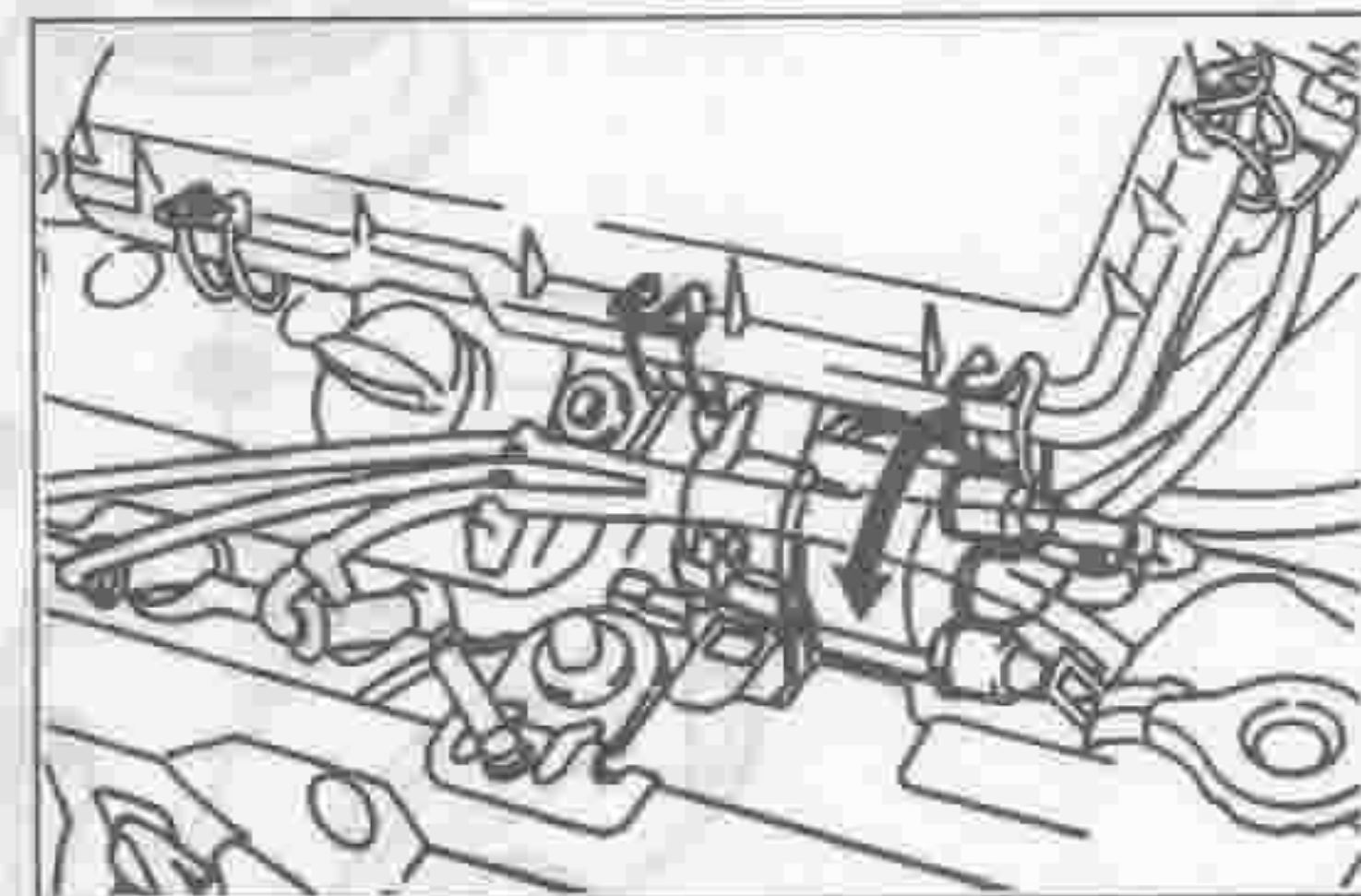
LIG00046-00041

- (12) Install the distributor to the engine.



LIG00047-00042

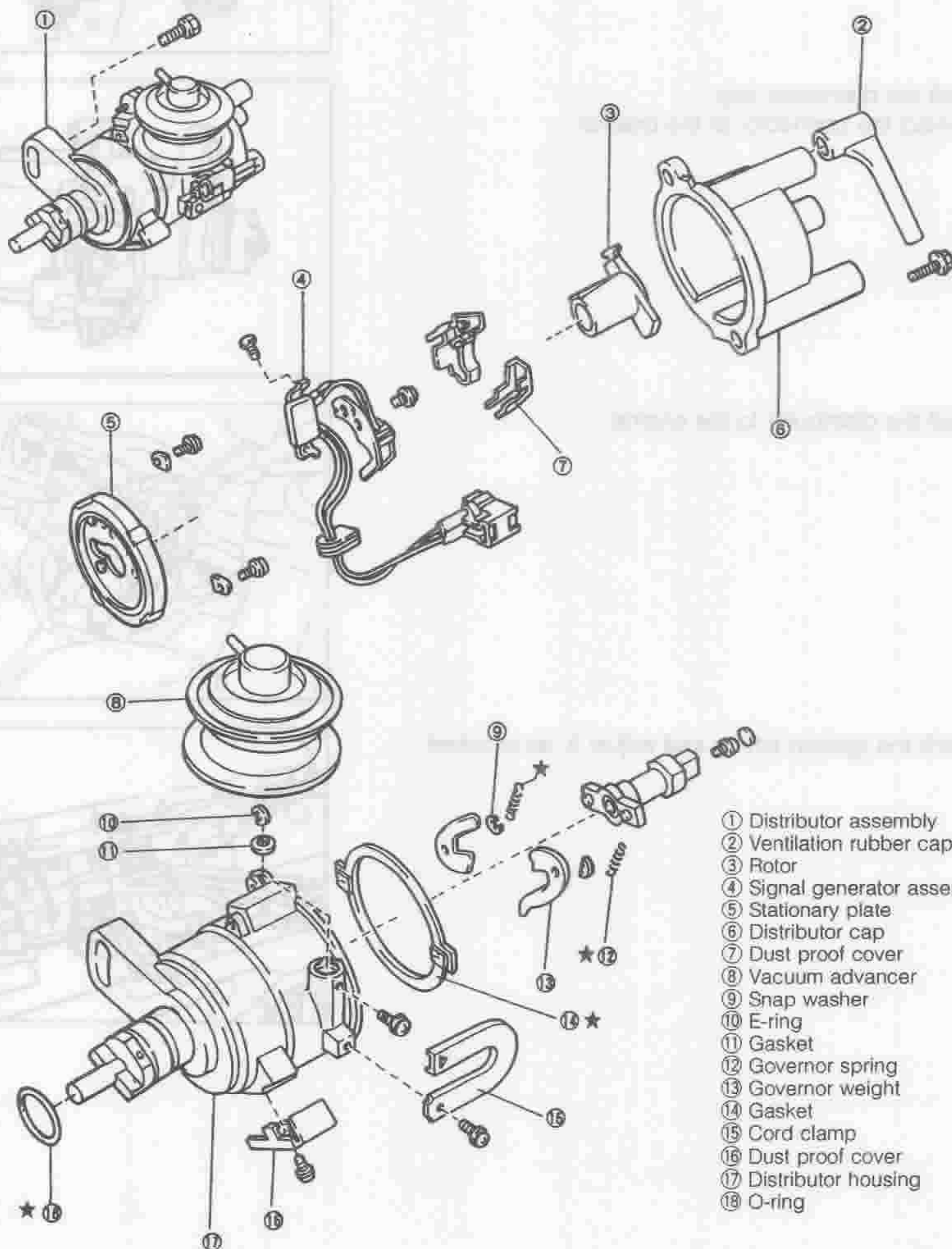
- (13) Check the ignition timing and adjust it, as required.



LIG00048-00043

## DISTRIBUTOR COMPONENTS [ED-10 Engine]

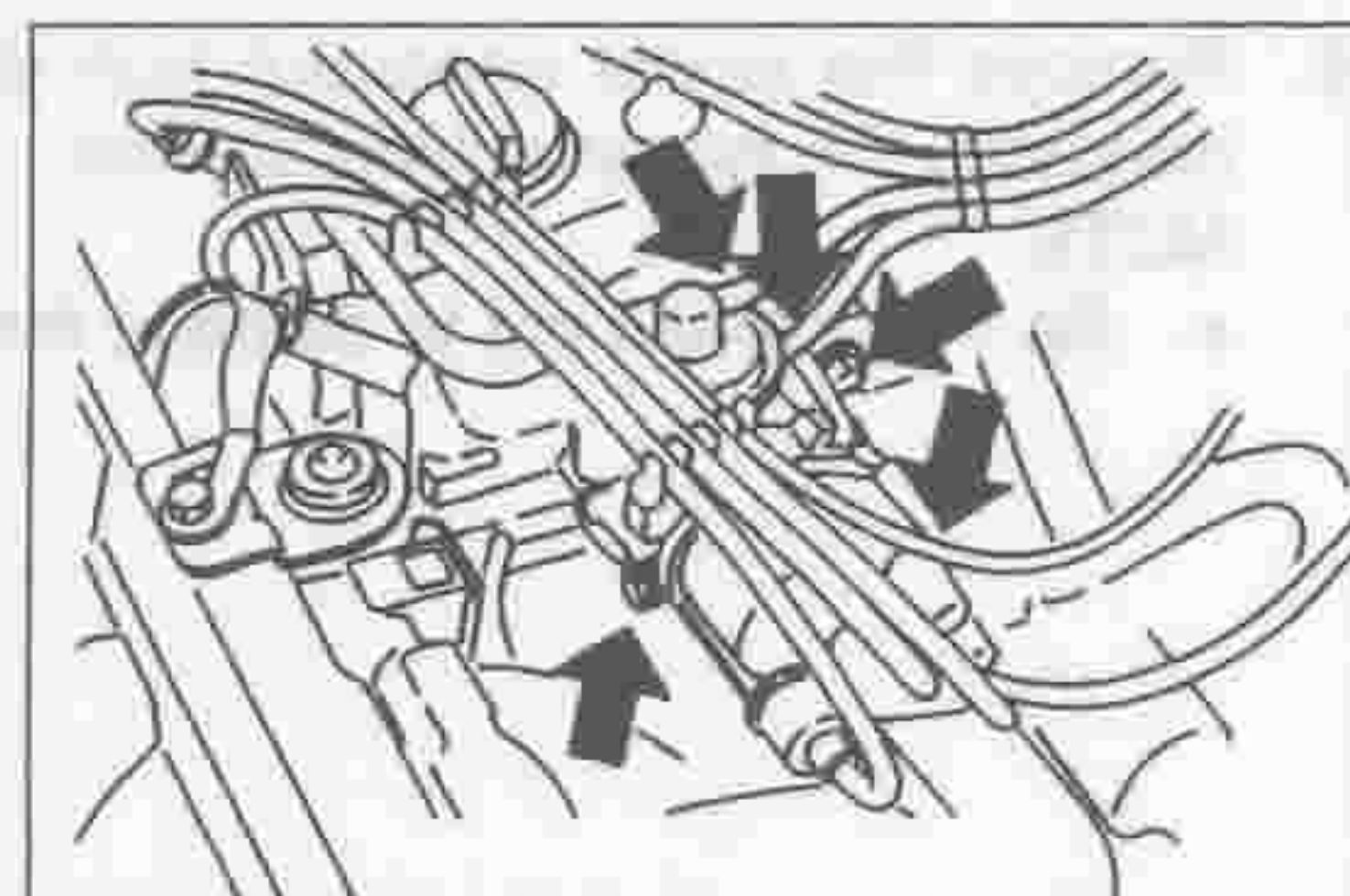
★ : Non-reusable part



- ① Distributor assembly
- ② Ventilation rubber cap
- ③ Rotor
- ④ Signal generator assembly
- ⑤ Stationary plate
- ⑥ Distributor cap
- ⑦ Dust proof cover
- ⑧ Vacuum advancer
- ⑨ Snap washer
- ⑩ E-ring
- ⑪ Gasket
- ⑫ Governor spring
- ⑬ Governor weight
- ⑭ Gasket
- ⑮ Cord clamp
- ⑯ Dust proof cover
- ⑰ Distributor housing
- ⑱ O-ring

## REMOVAL OF DISTRIBUTOR

1. Disconnect the battery ground cable terminal from the negative (-) terminal of the battery.
2. Disconnect the resistive cords from the distributor cap.
3. Disconnect the vacuum hoses from the vacuum advancer.

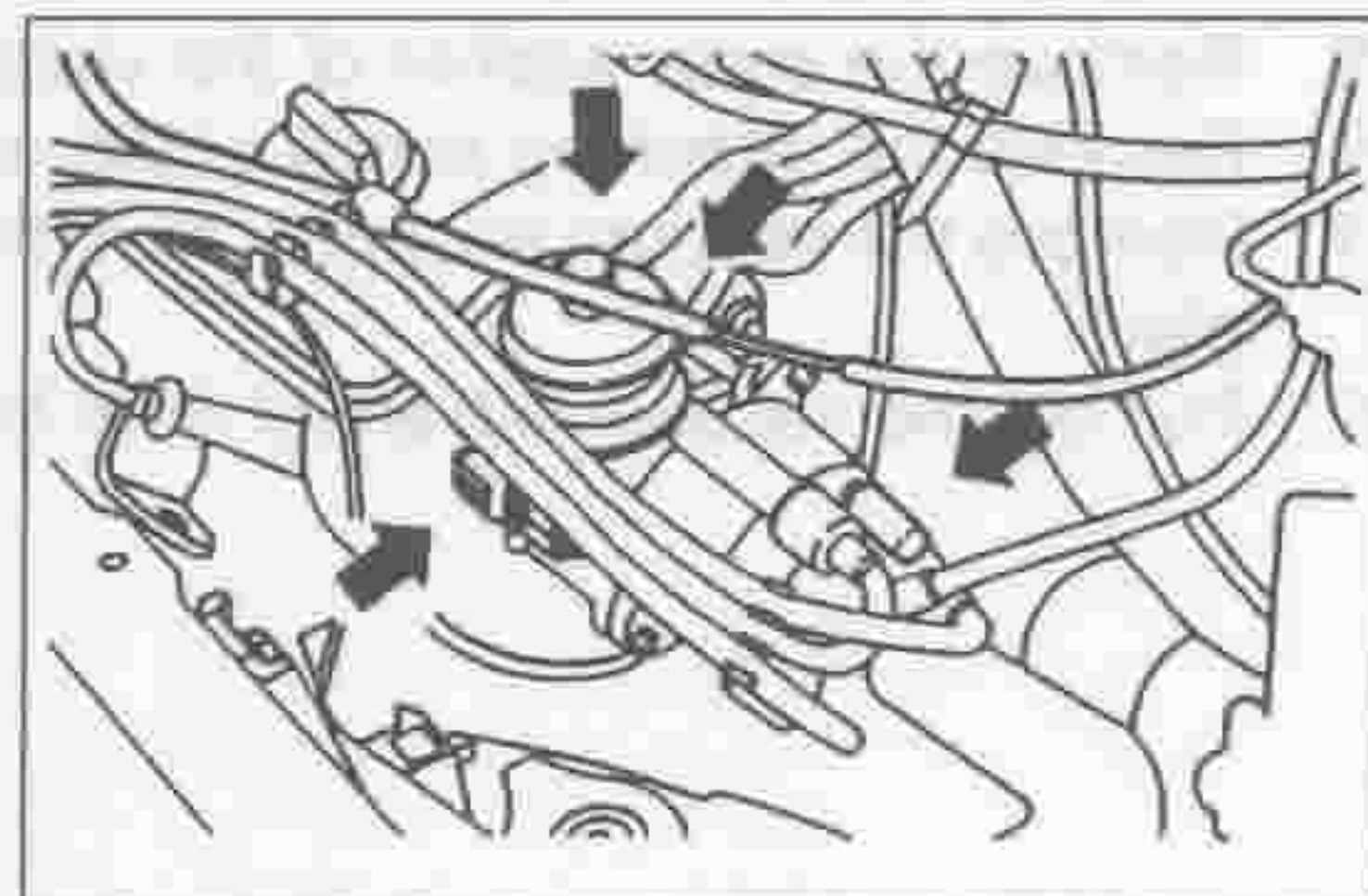


LIG00050-00045

4. Disconnect the connector from the distributor.
5. Remove the distributor retaining bolt.
6. Pull out the distributor from the cylinder head.

### NOTE:

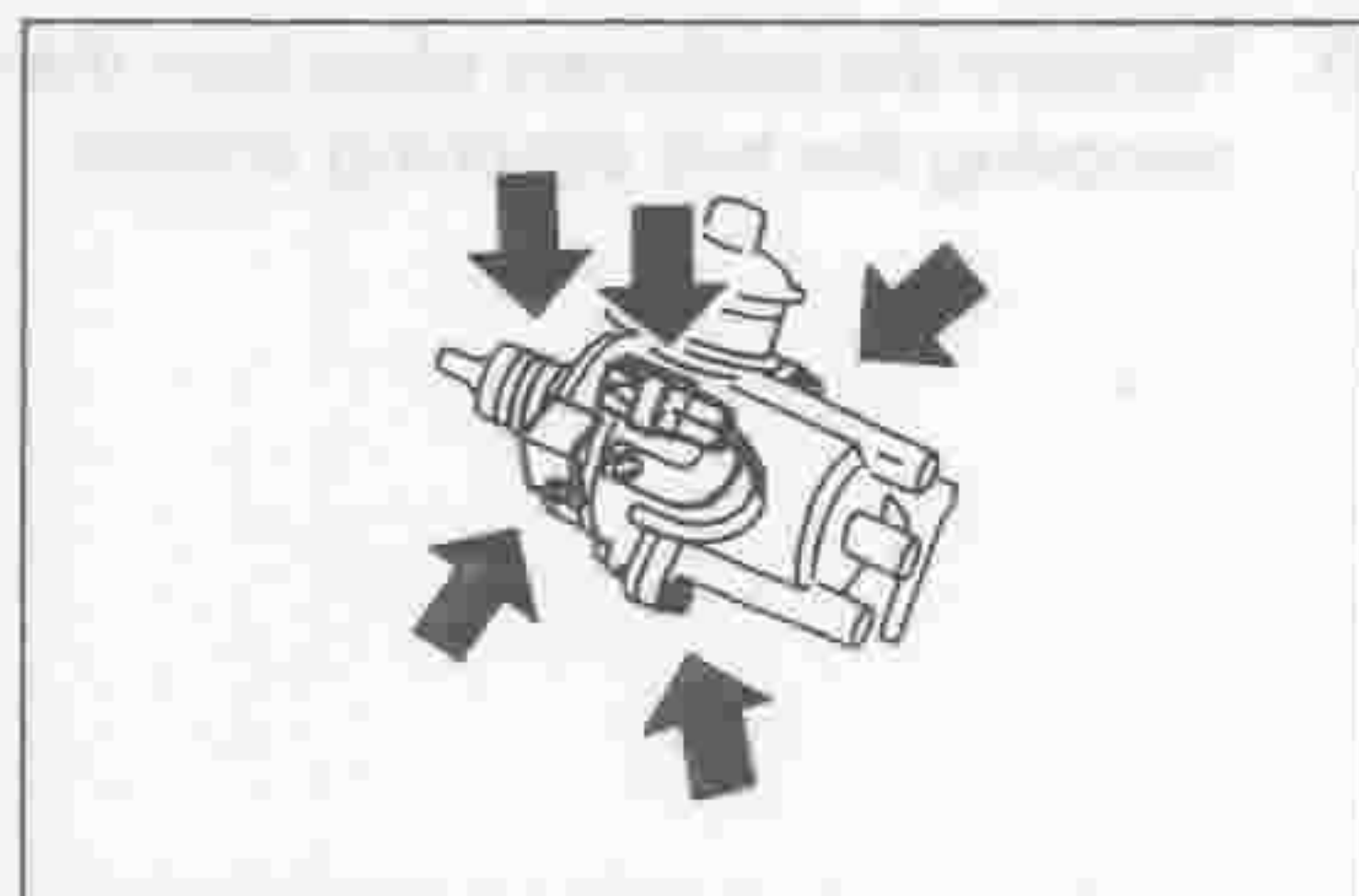
- Since the oil flows out, place a suitable cloth or the like under the connecting section between the distributor and the cylinder head.



LIG00051-00046

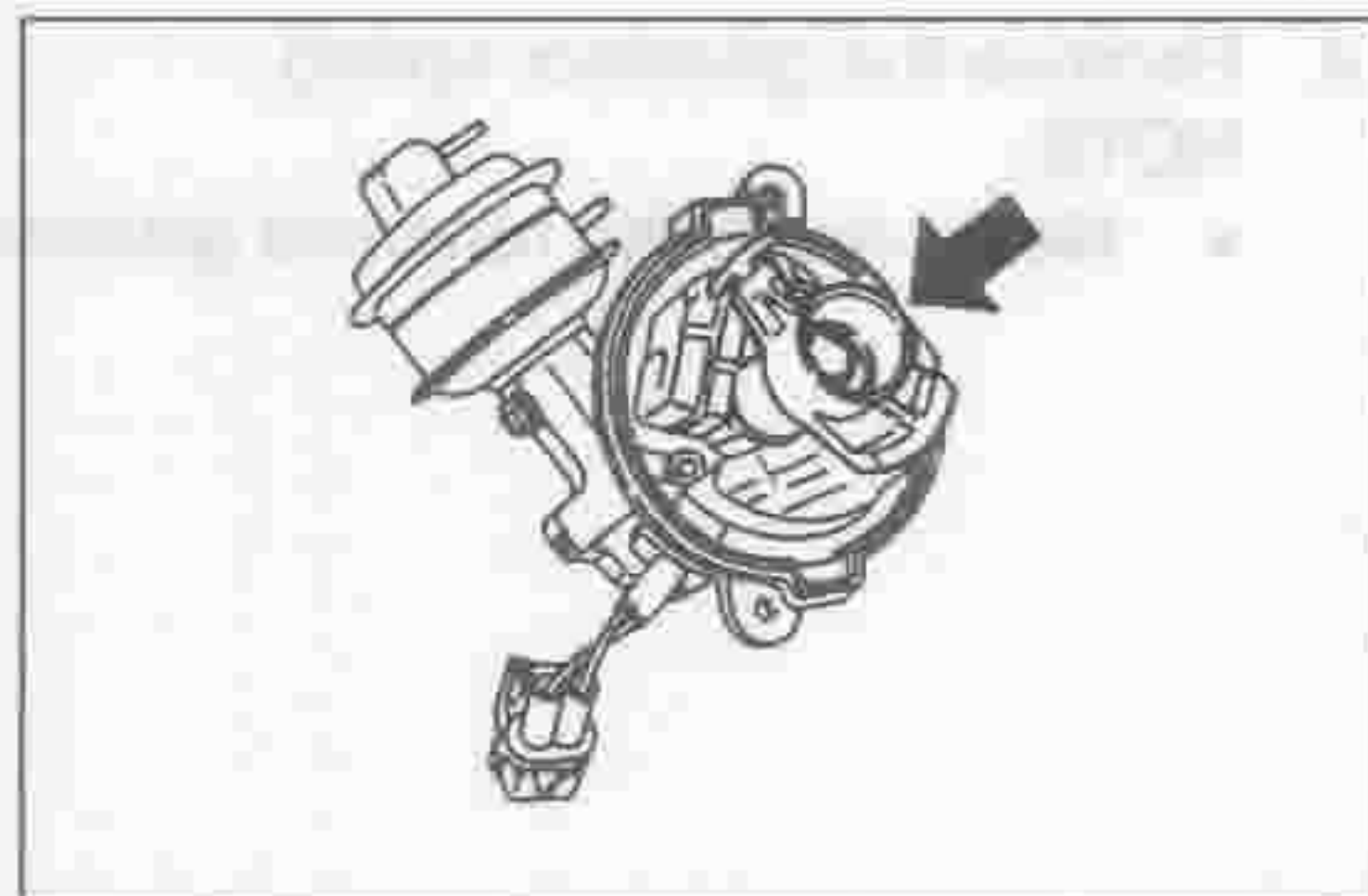
## DISASSEMBLY OF DISTRIBUTOR

1. Remove the O-ring from the distributor housing.
2. Remove the distributor cap from the distributor housing.
3. Remove the connector from the bracket.
4. Remove the bracket for the connector.
5. Remove the rotor.



LIG00052-00047

6. Remove the distributor cap gasket.

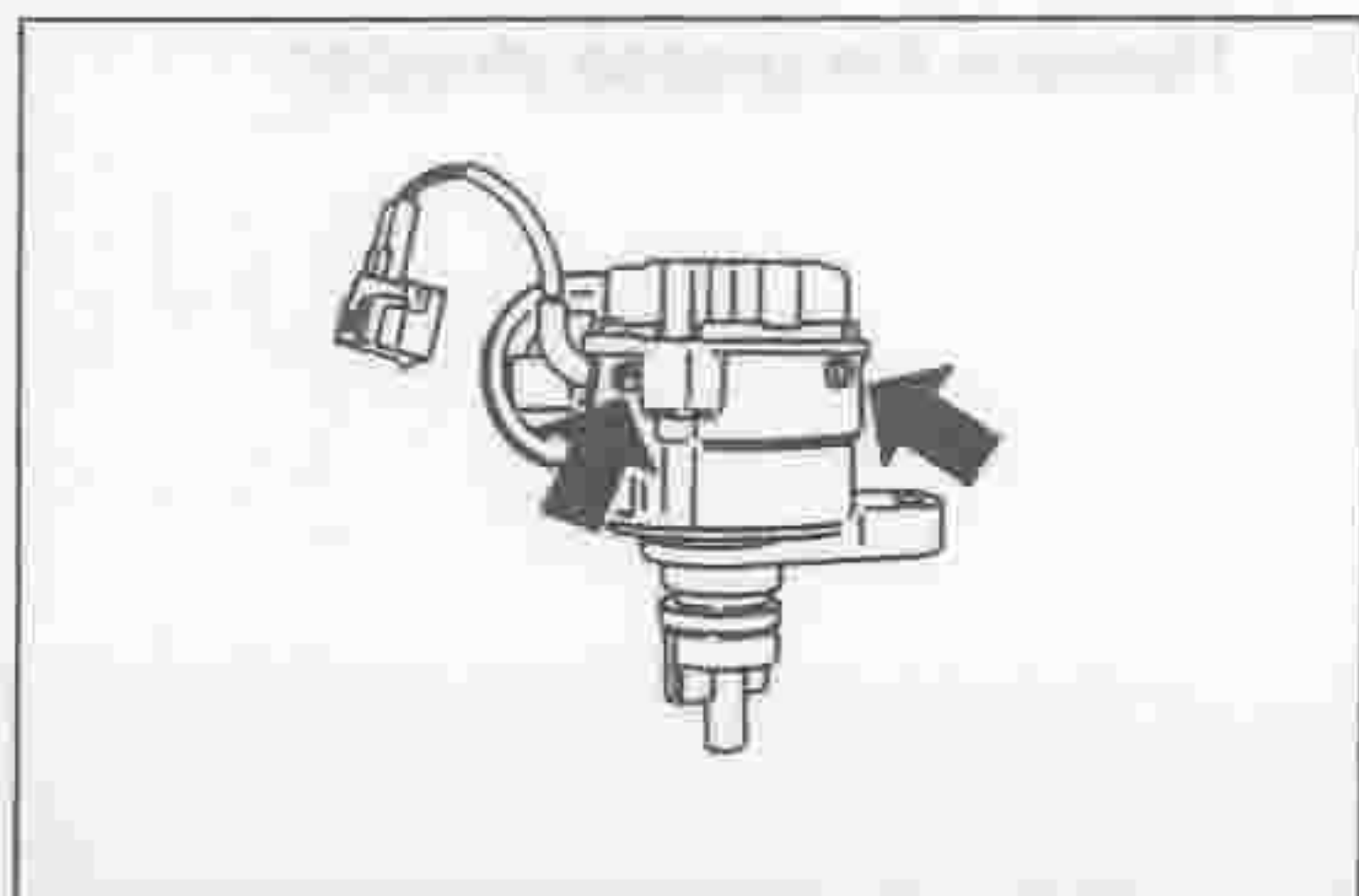


LIG00053-00048

7. Remove the ignitor from the distributor housing by removing the two attaching screws.

### NOTE:

- Be very careful not to damage the wire.



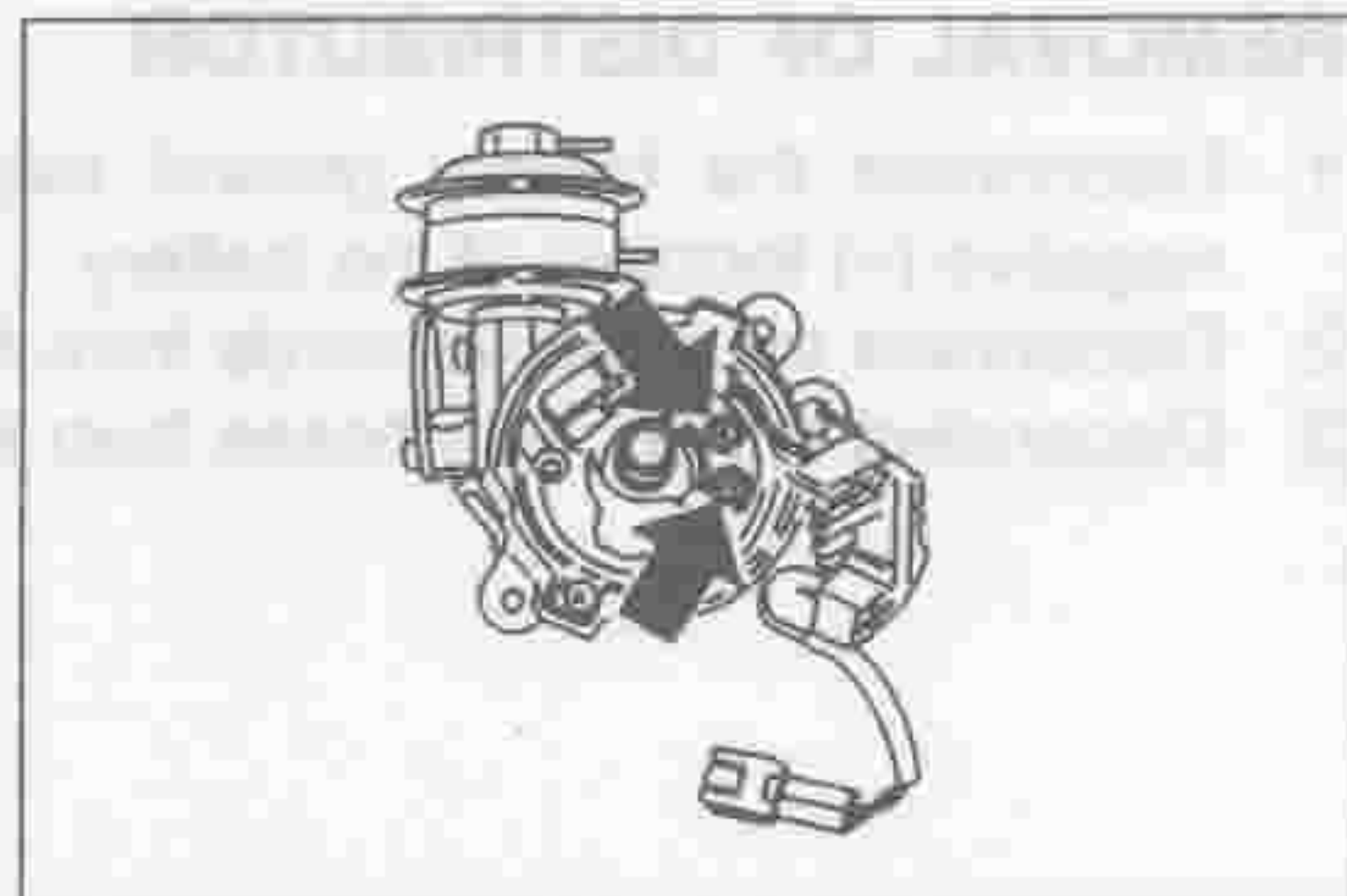
LIG00054-00049

# IG-16

8. Remove the signal generator from distributor housing by removing the two attaching screws.

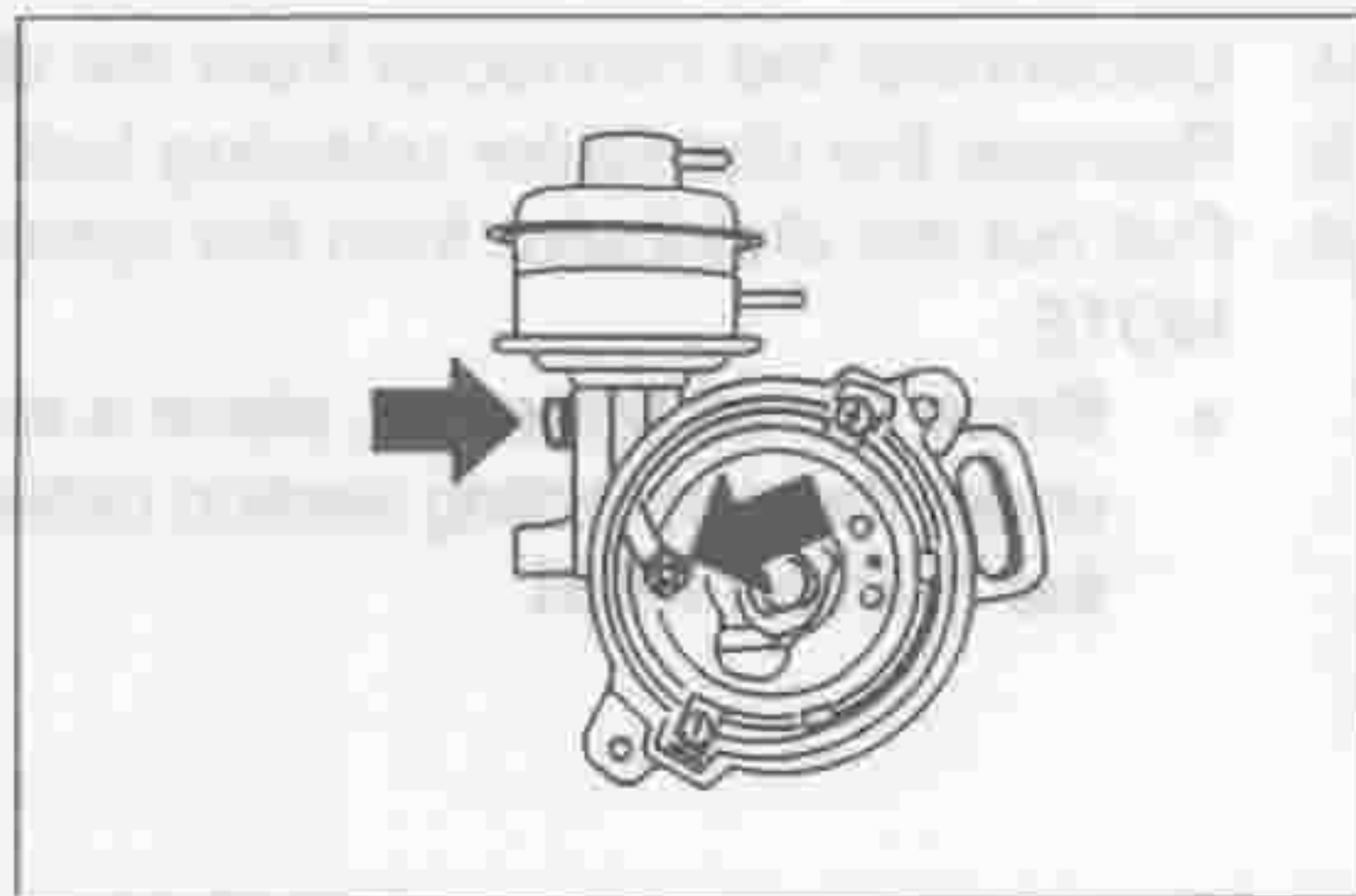
**NOTE:**

- Be very careful not to damage the wire.



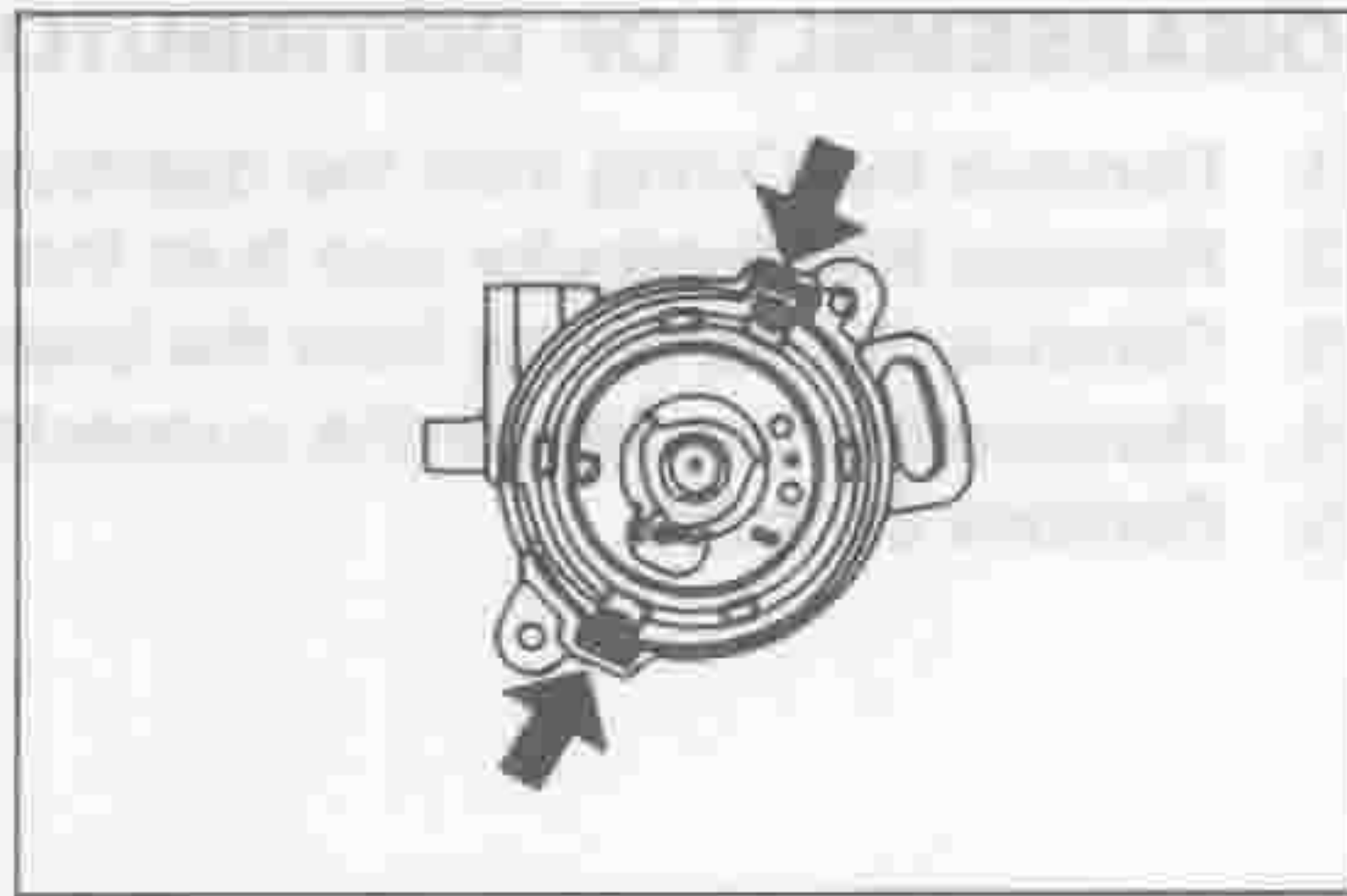
LIG00055-00050

9. Remove the snap washer of the vacuum advancer.
10. Remove the attaching screw of the vacuum advancer.
11. Remove the vacuum advancer from the pin of the stationary plate.
12. Pull out the vacuum advancer from the distributor housing.



LIG00056-00051

13. Remove the stationary plate from the distributor housing by removing the two attaching screws.

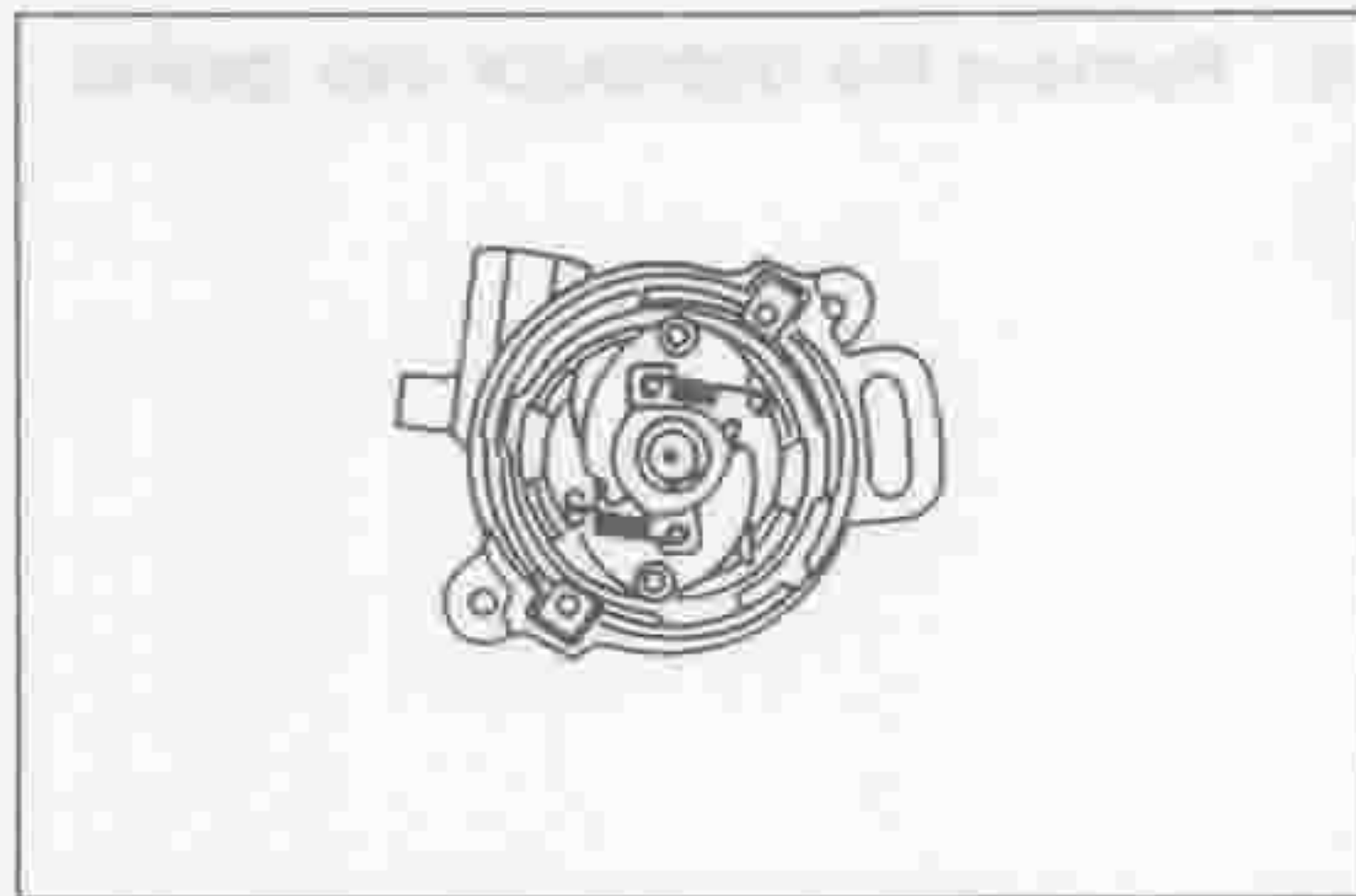


LIG00057-00052

14. Remove the governor spring.

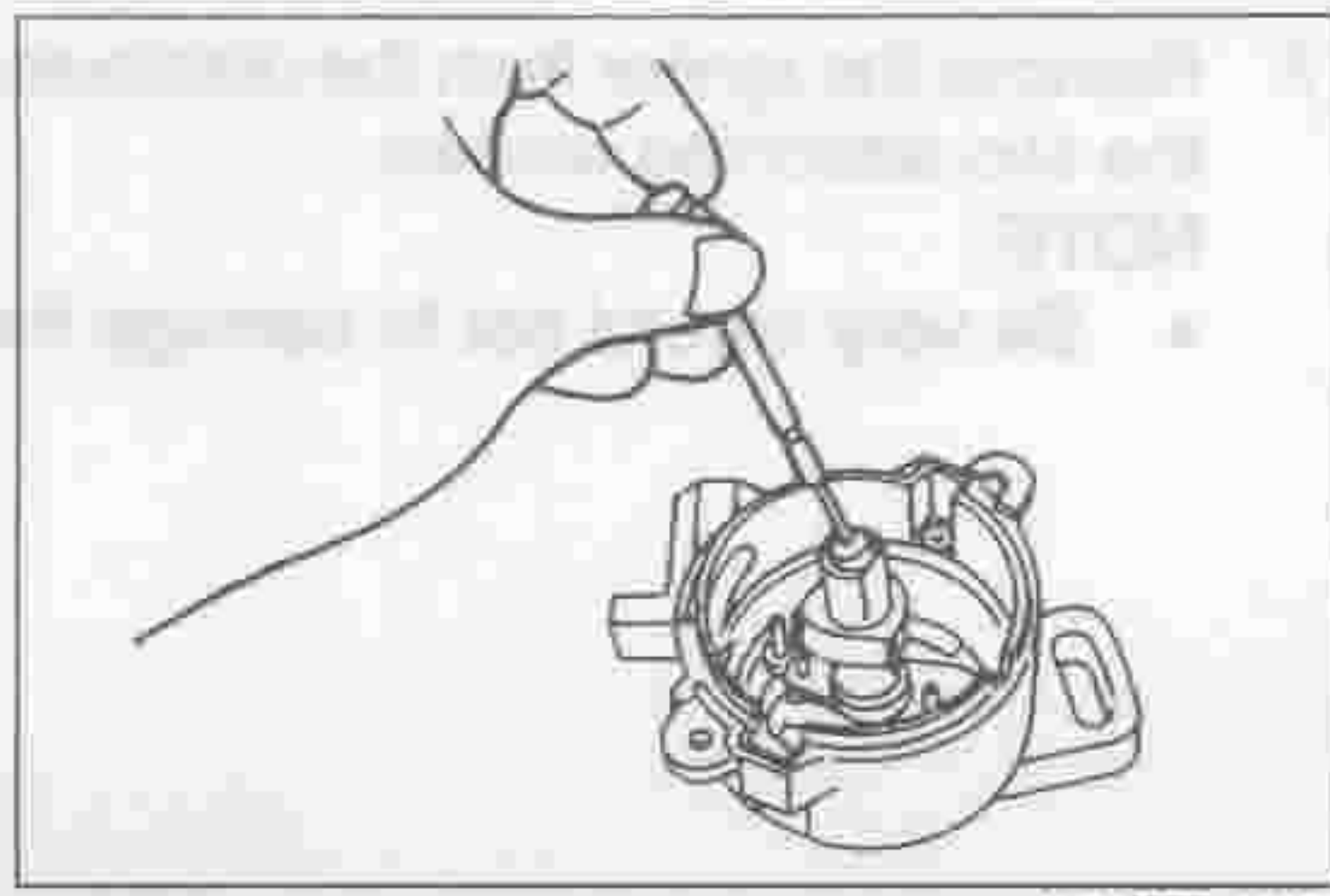
**NOTE:**

- Never reuse the removed governor springs.



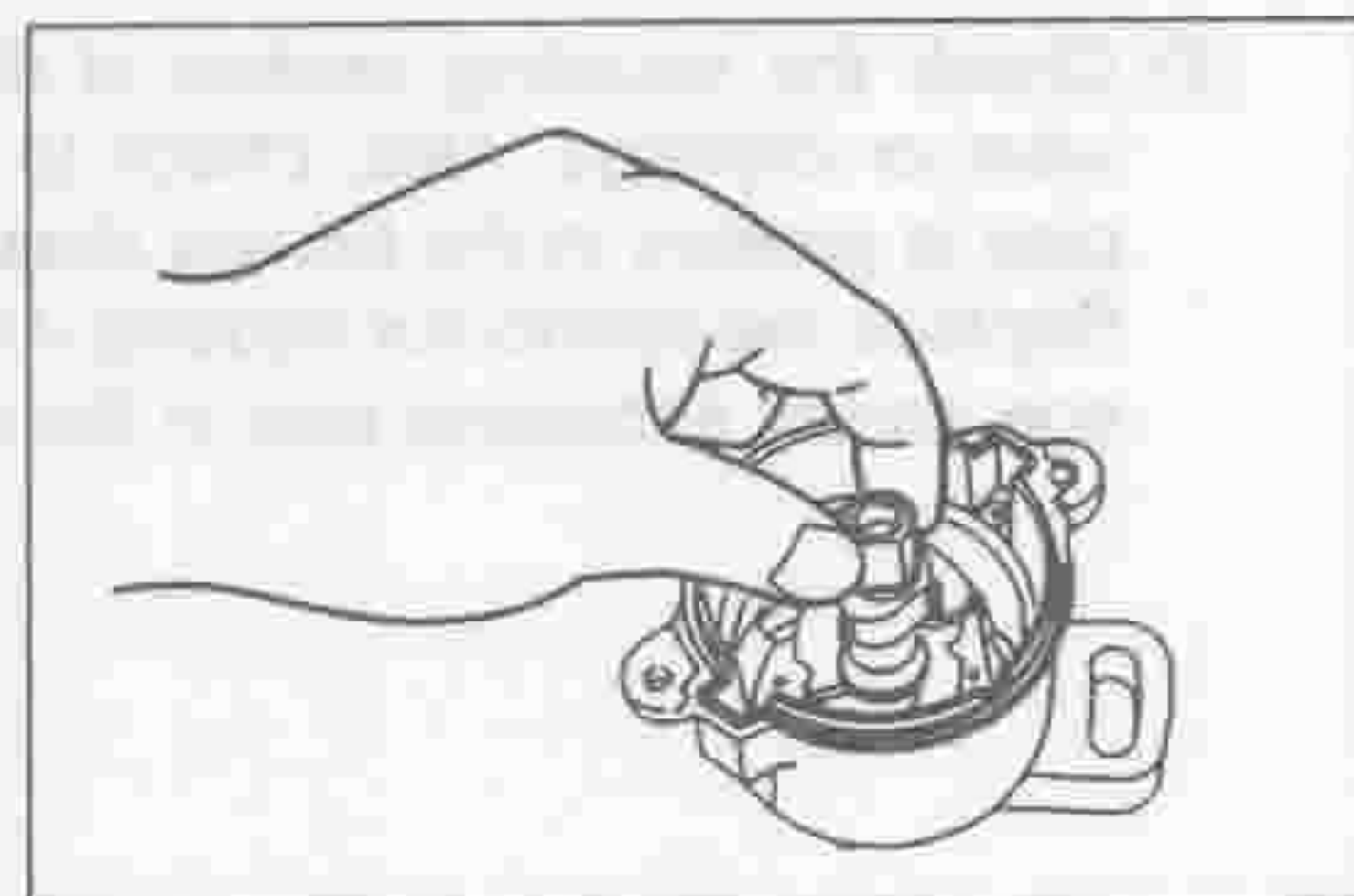
LIG00058-00053

15. Remove the grease stopper.



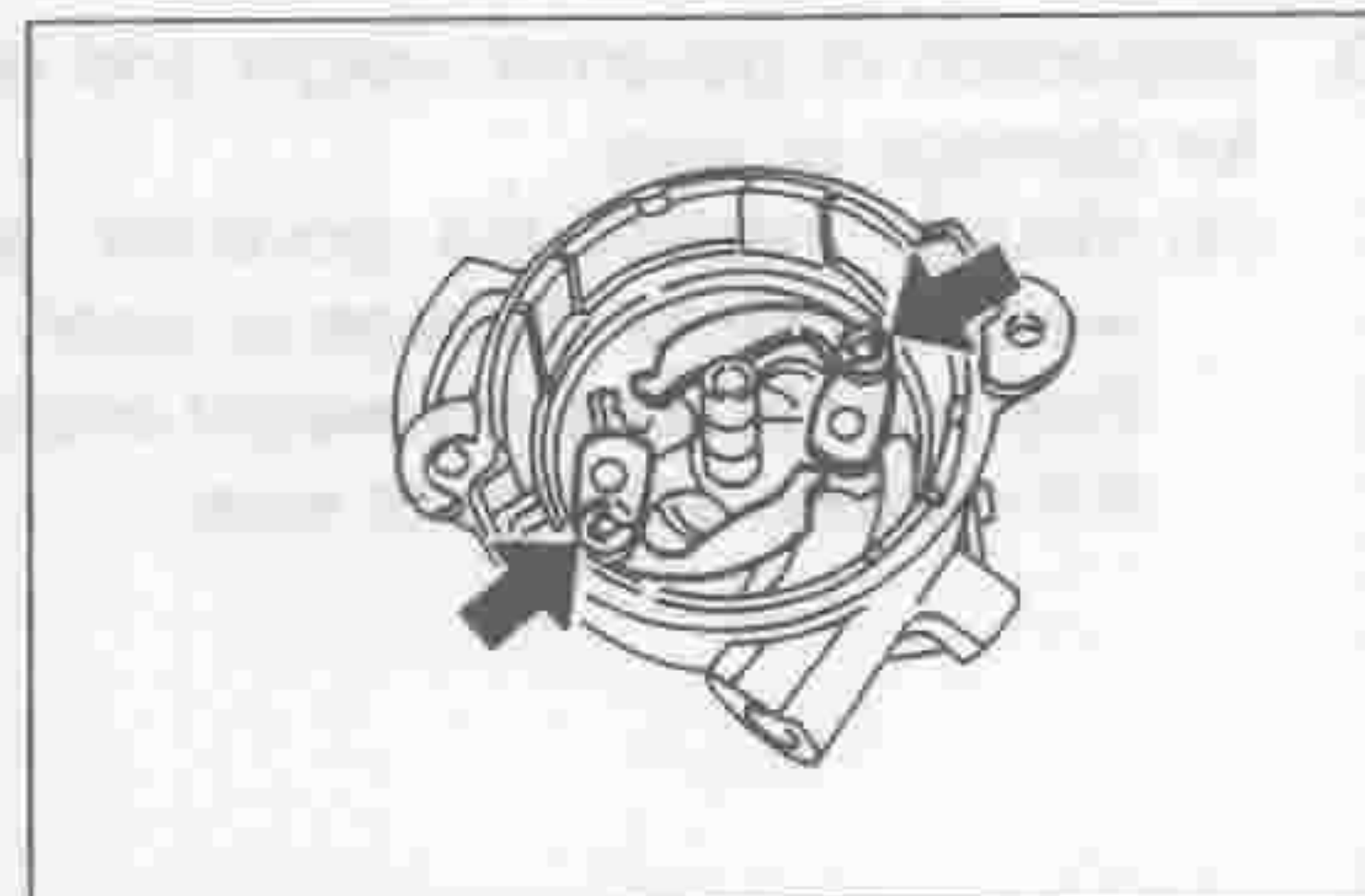
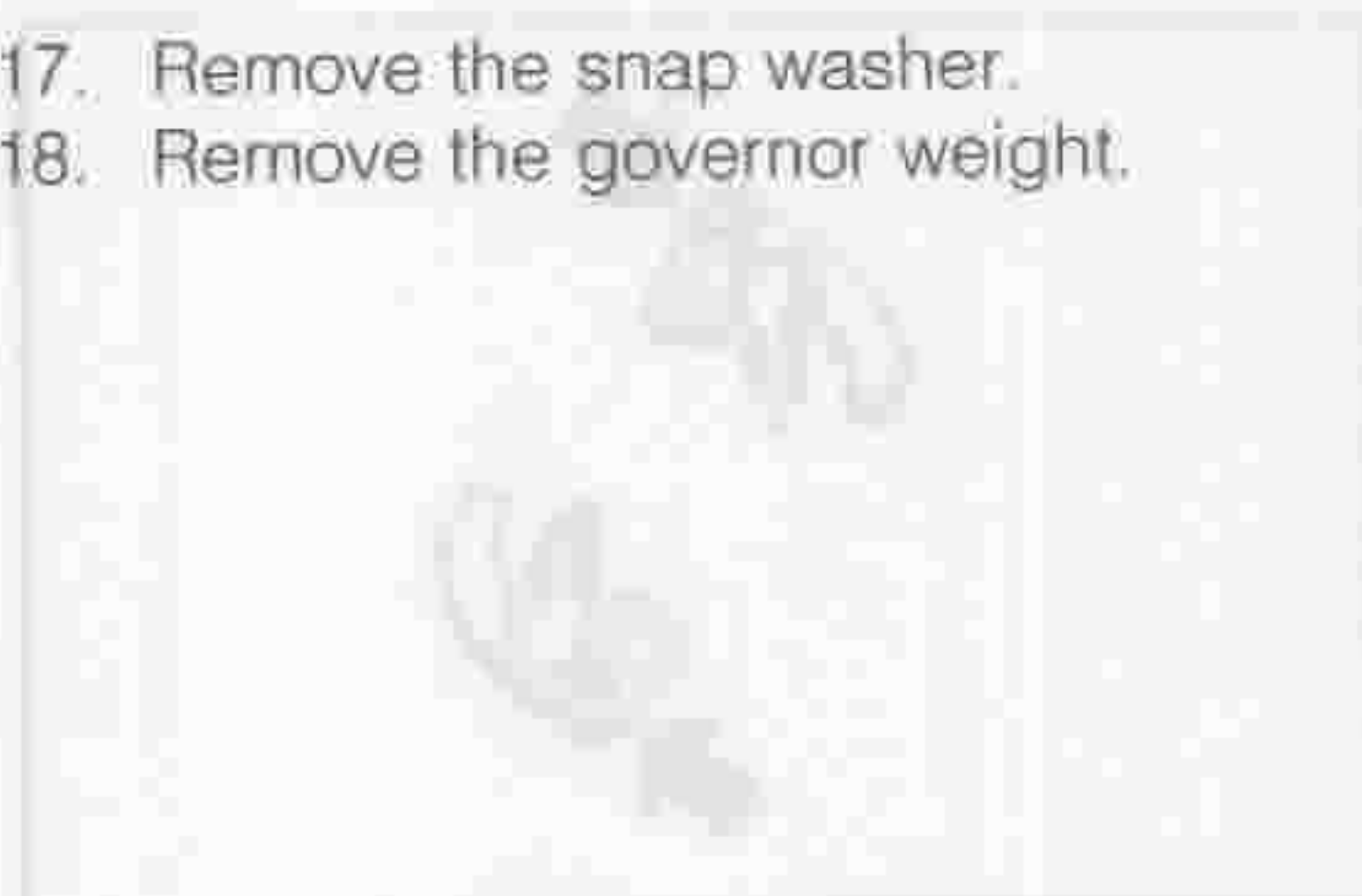
LIG00059-00054

16. Remove the signal rotor assembly by removing the attaching screw.



LIG00060-00055

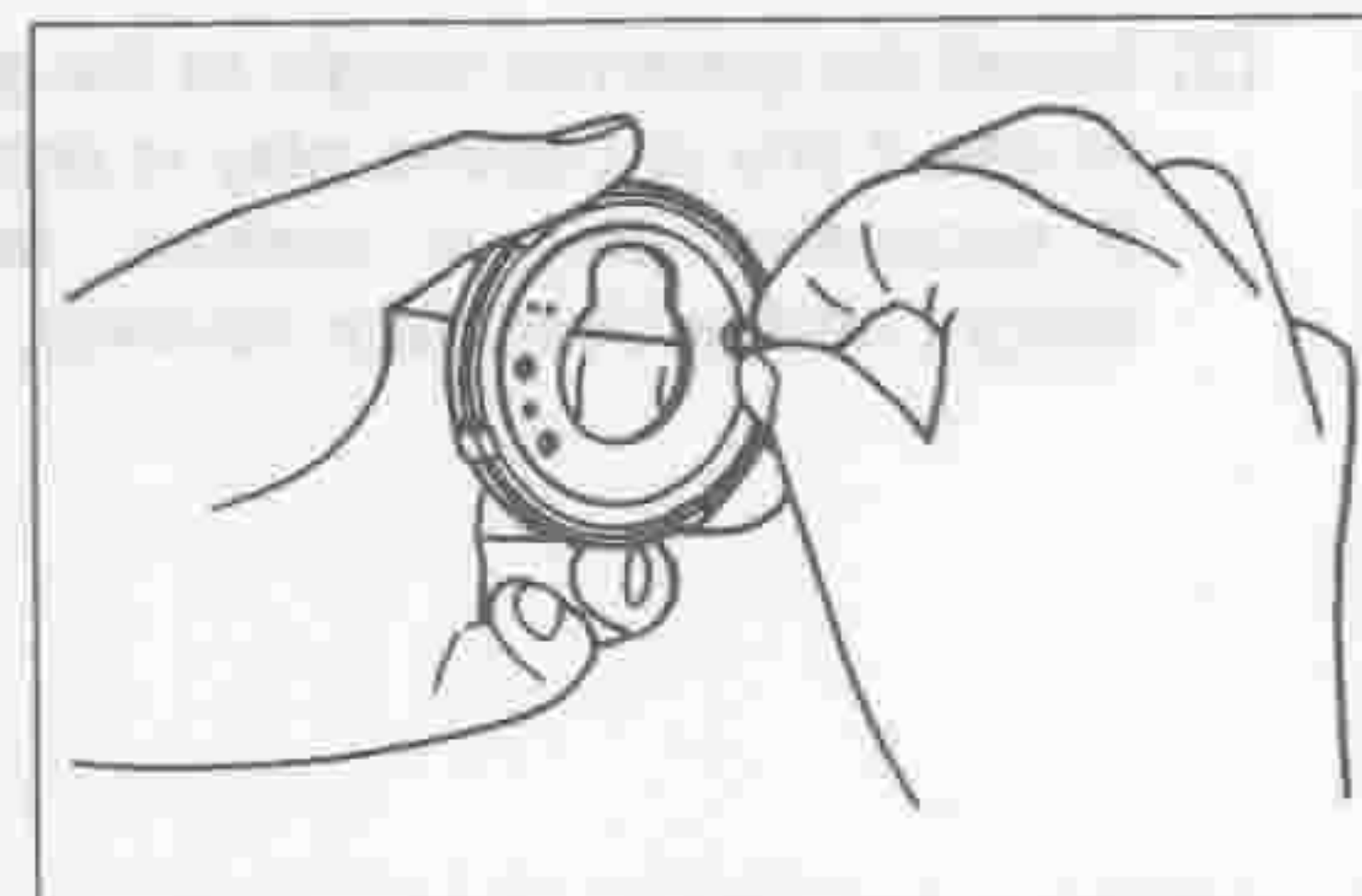
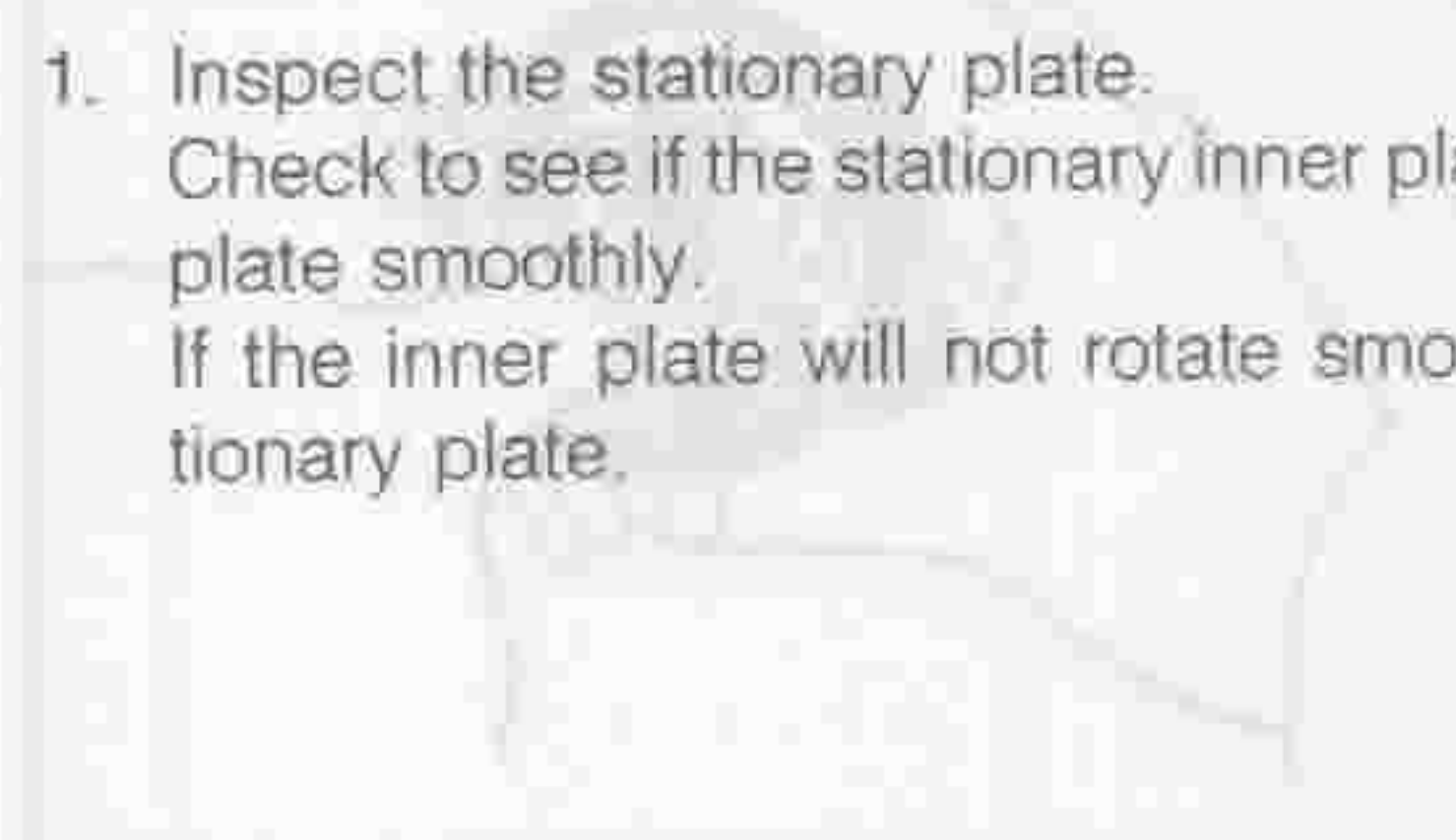
17. Remove the snap washer.
18. Remove the governor weight.



LIG00061-00056

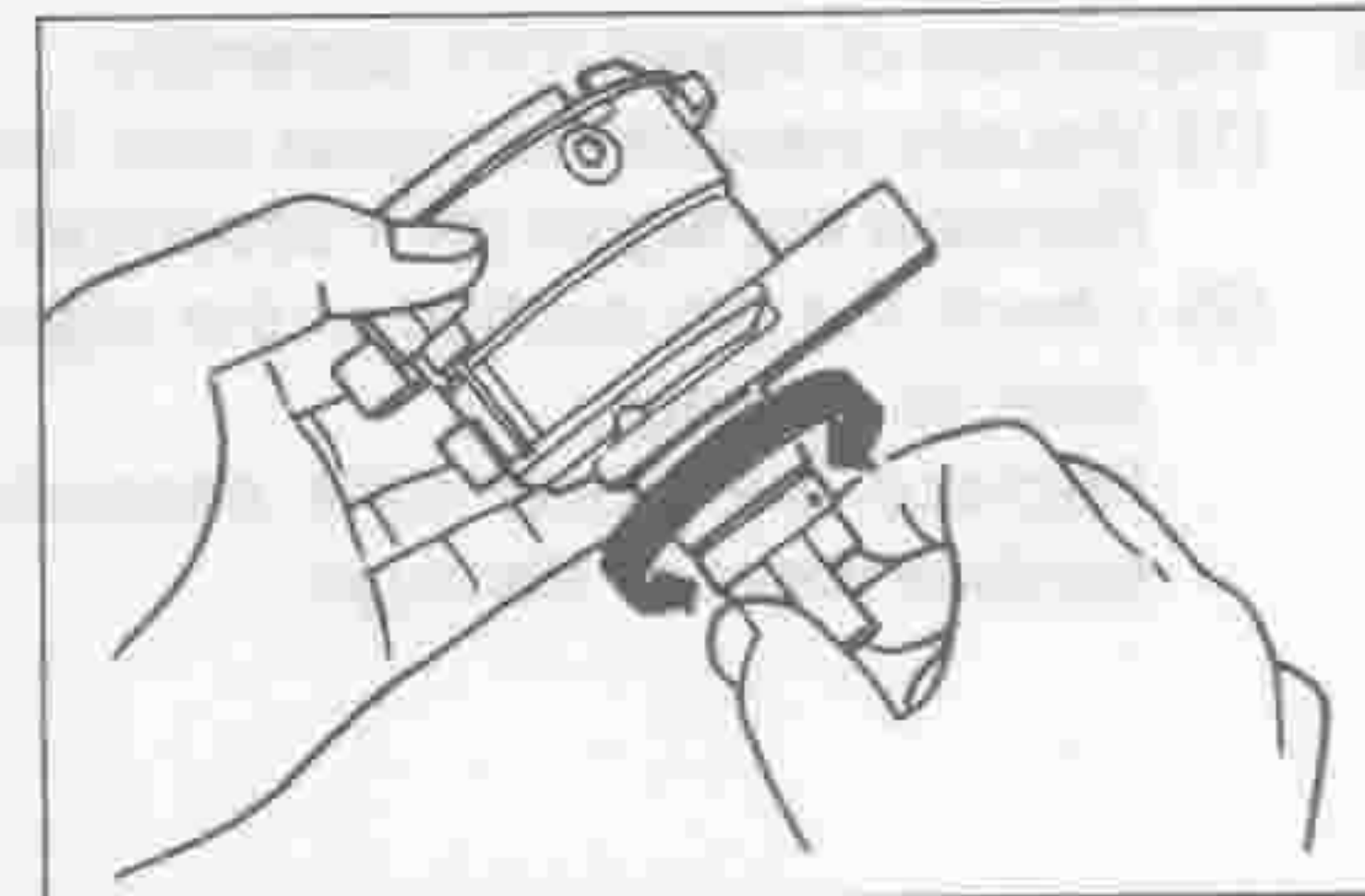
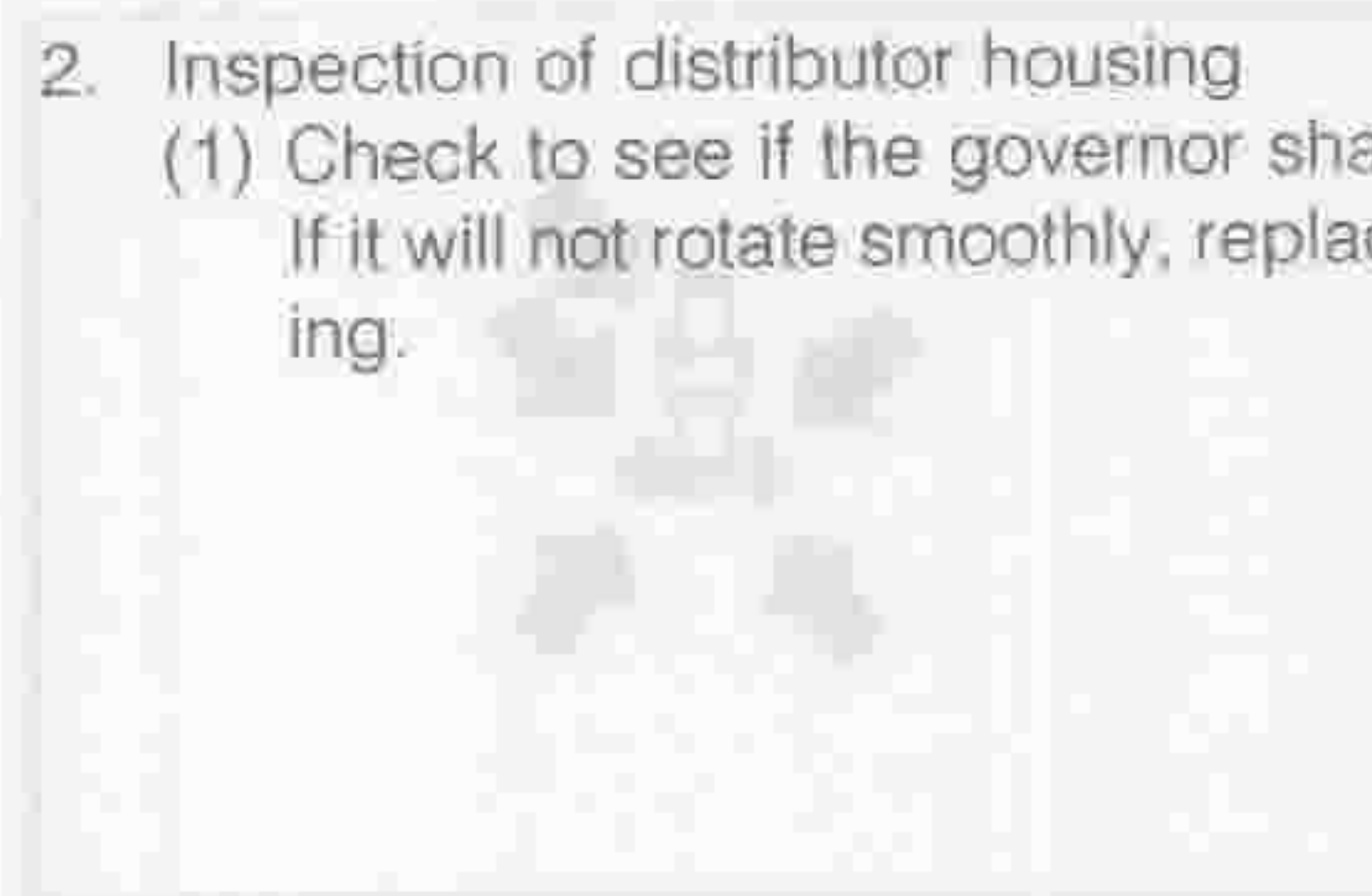
## INSPECTION OF DISTRIBUTOR COMPONENTS

1. Inspect the stationary plate.  
Check to see if the stationary inner plate rotates on the outer plate smoothly.  
If the inner plate will not rotate smoothly, replace the stationary plate.



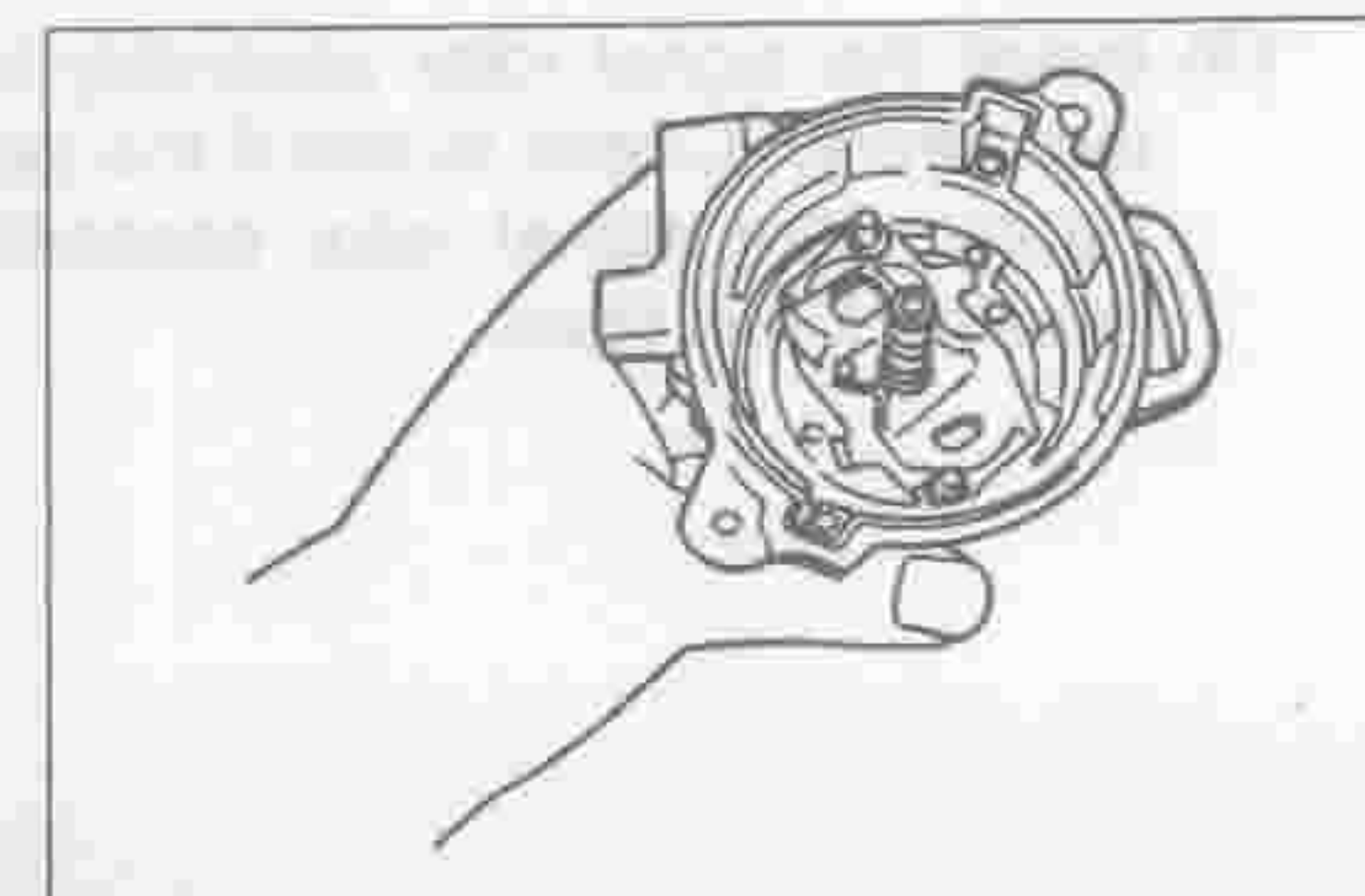
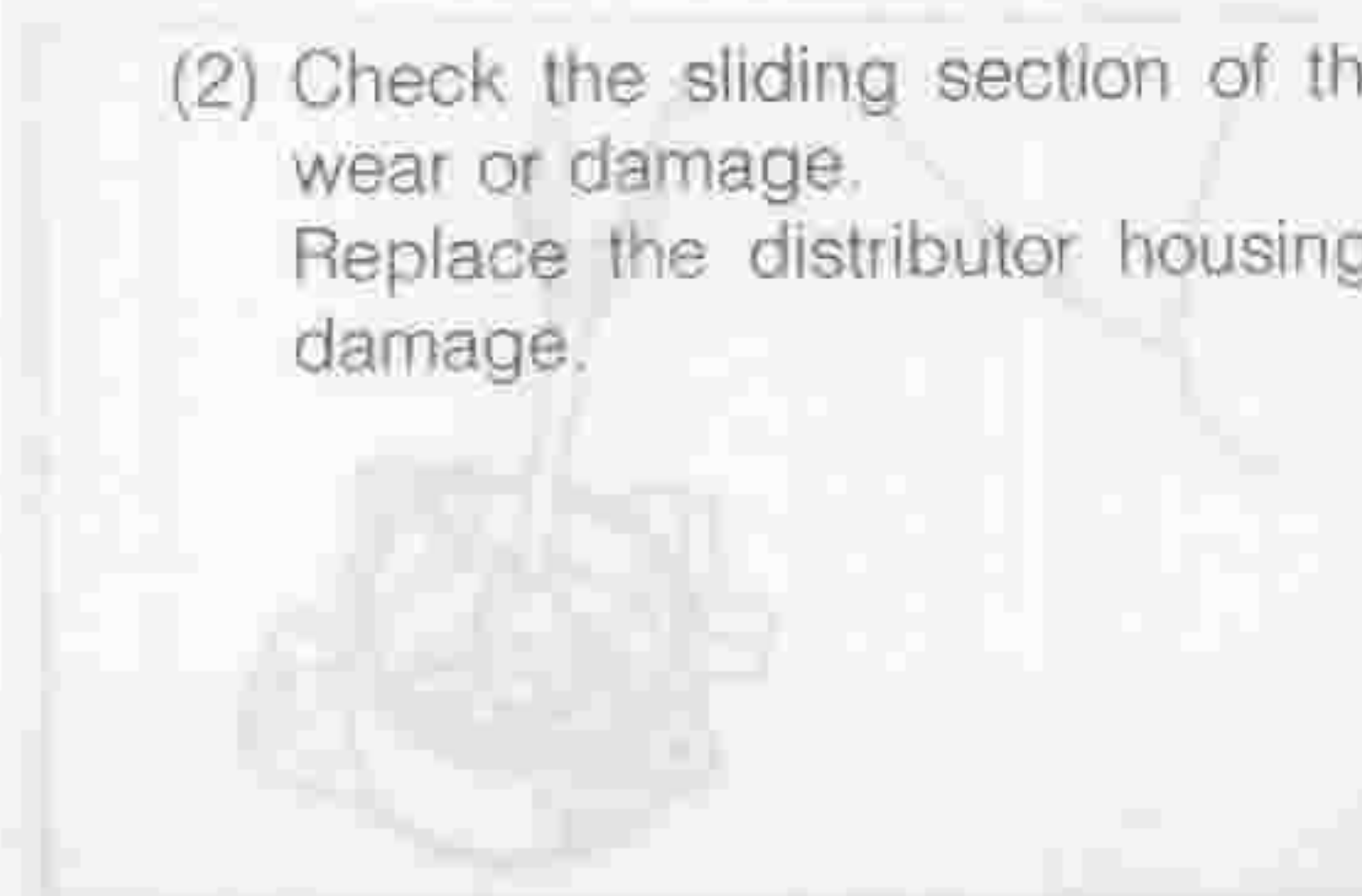
LIG00062-00057

2. Inspection of distributor housing
  - (1) Check to see if the governor shaft rotates smoothly.  
If it will not rotate smoothly, replace the distributor housing.



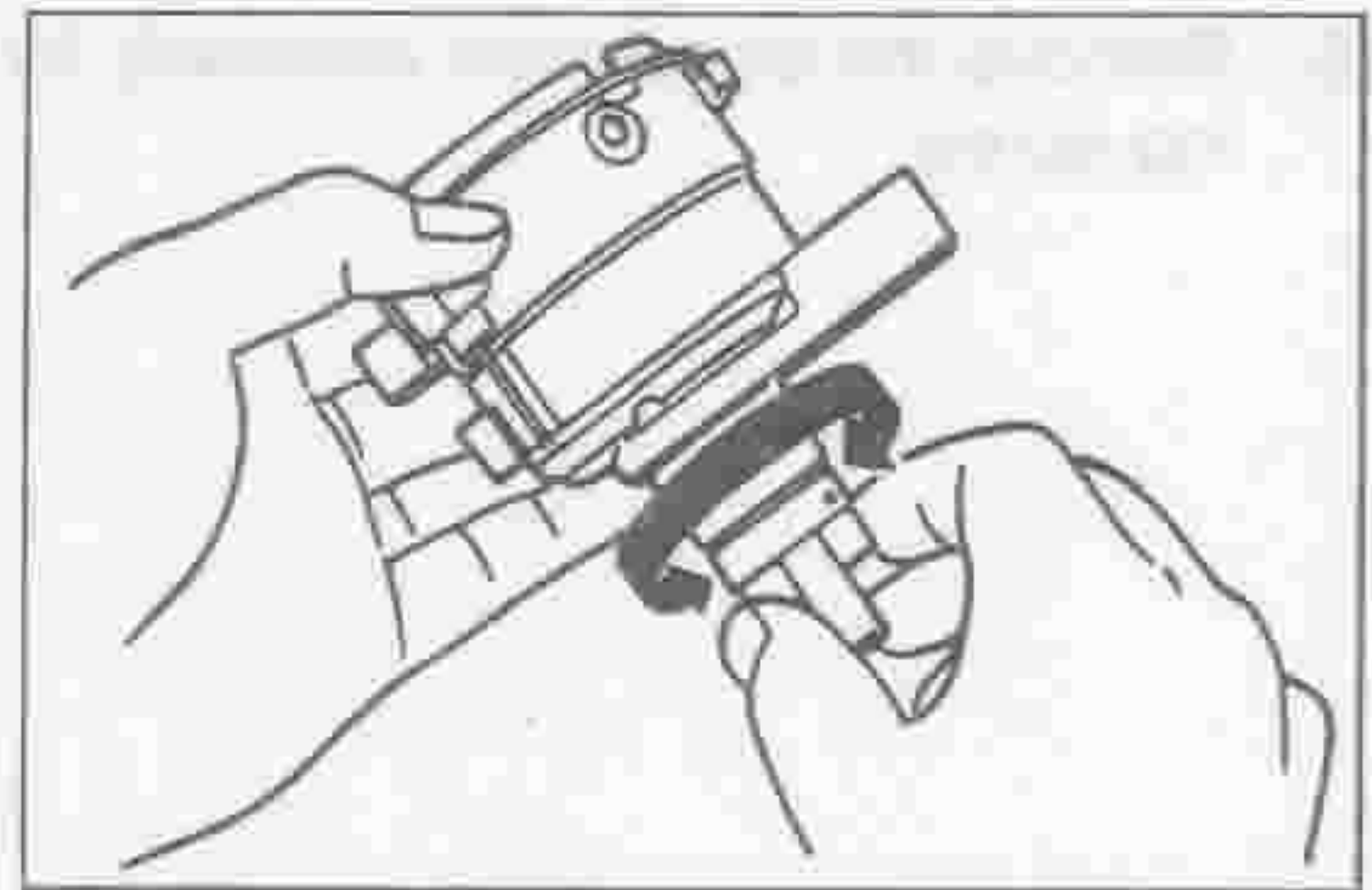
LIG00063-00058

- (2) Check the sliding section of the governor weight for wear or damage.  
Replace the distributor housing if it exhibits wear or damage.



LIG00064-00059

- (3) Check the coupling section of the governor shaft for wear or damage. Also, check to see if any excessive play is present in the turning direction. Replace the distributor housing if it exhibits wear, damage and/or excessive play in the turning direction.

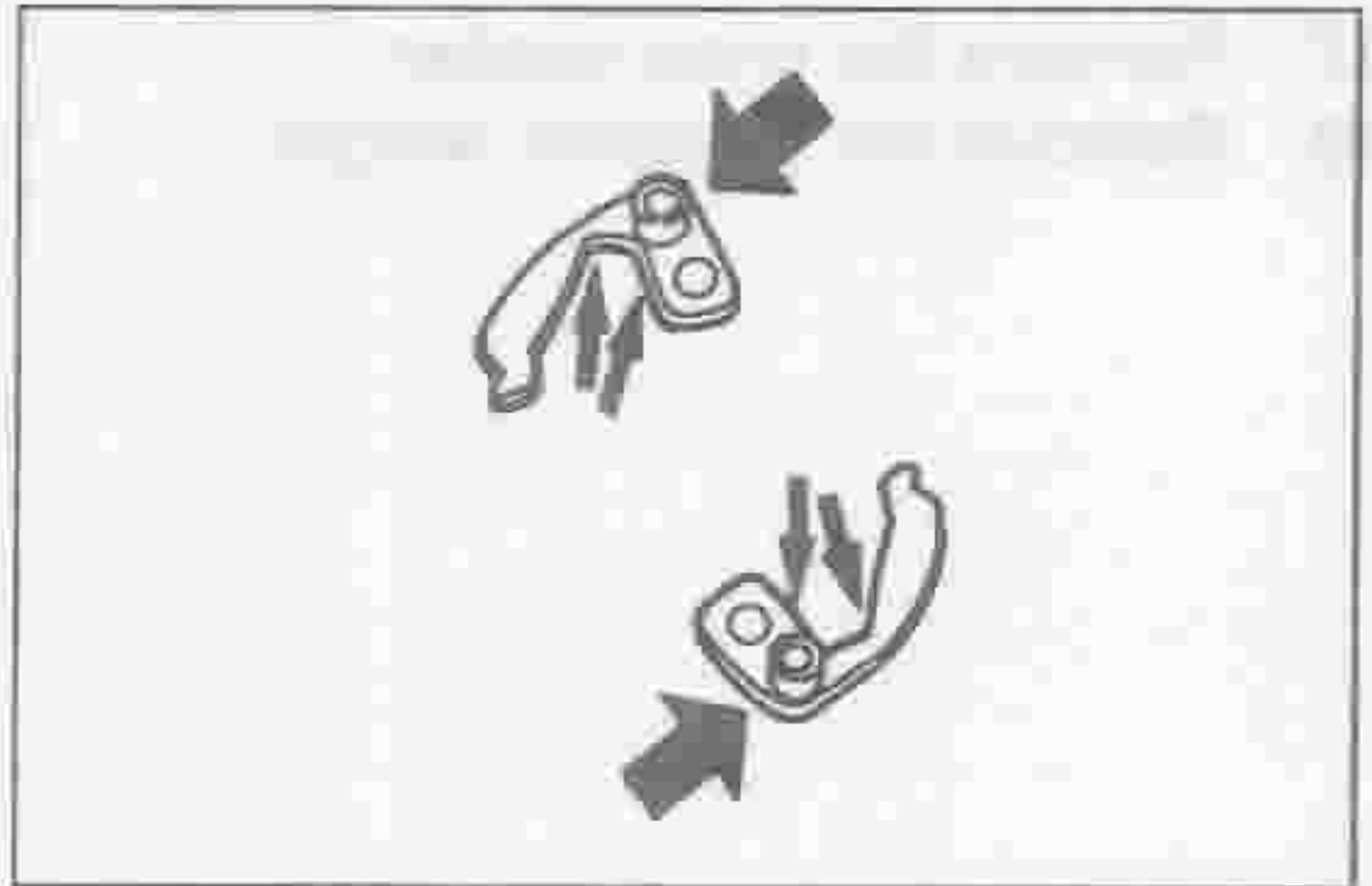


LIG00065-00060

## 3. Inspection of governor weight and governor weight bush for damage or wear

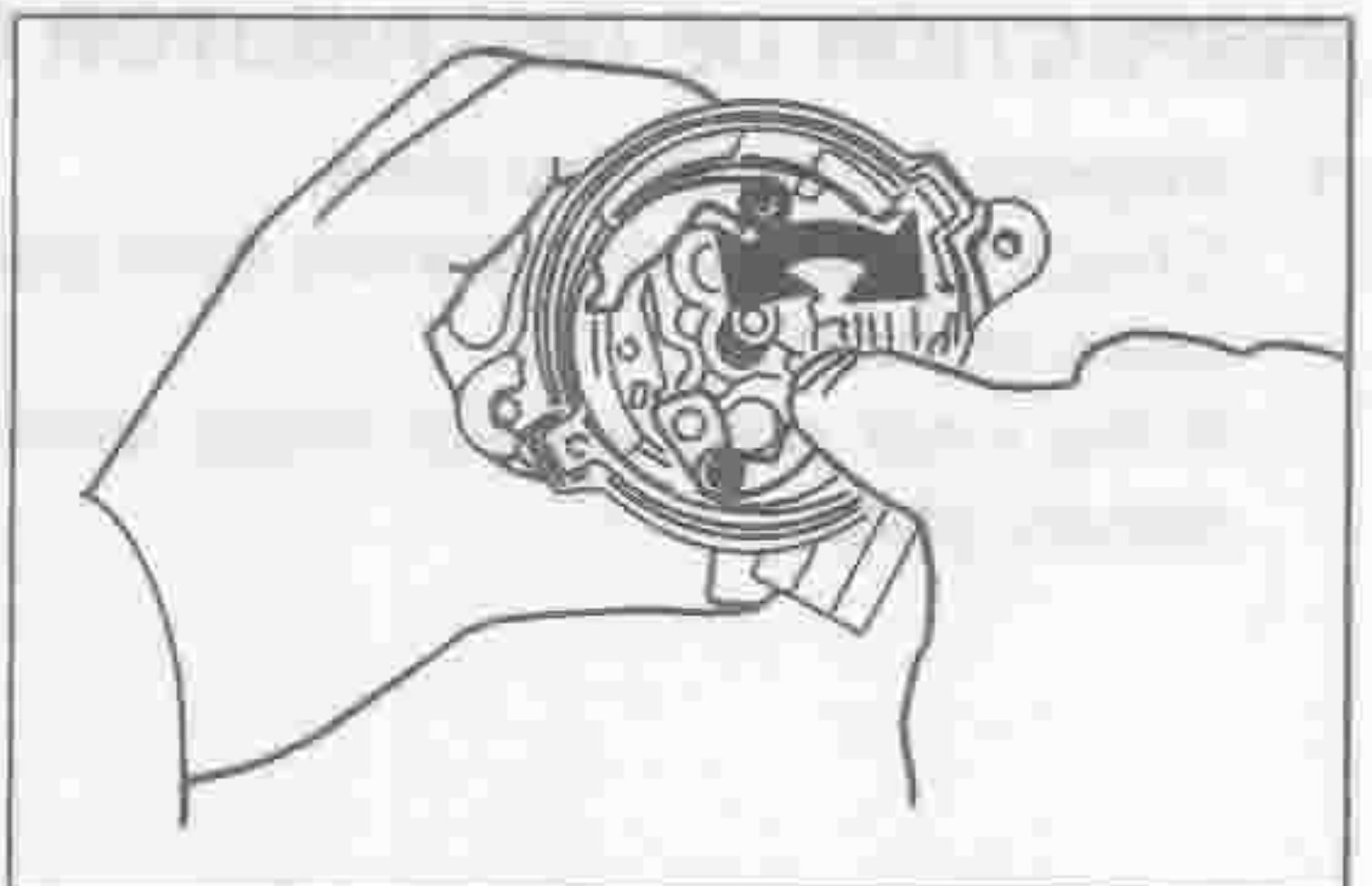
- (1) Visually inspect the governor weight and governor weight bush for damage or wear.

Replace the governor weight and governor weight bush if it exhibits damage or wear.



LIG00066-00061

- (2) Install the governor weight to the governor shaft. Check to see if any excessive play is present. If excessive play is present, replace the governor weight and/or distributor housing, as required.



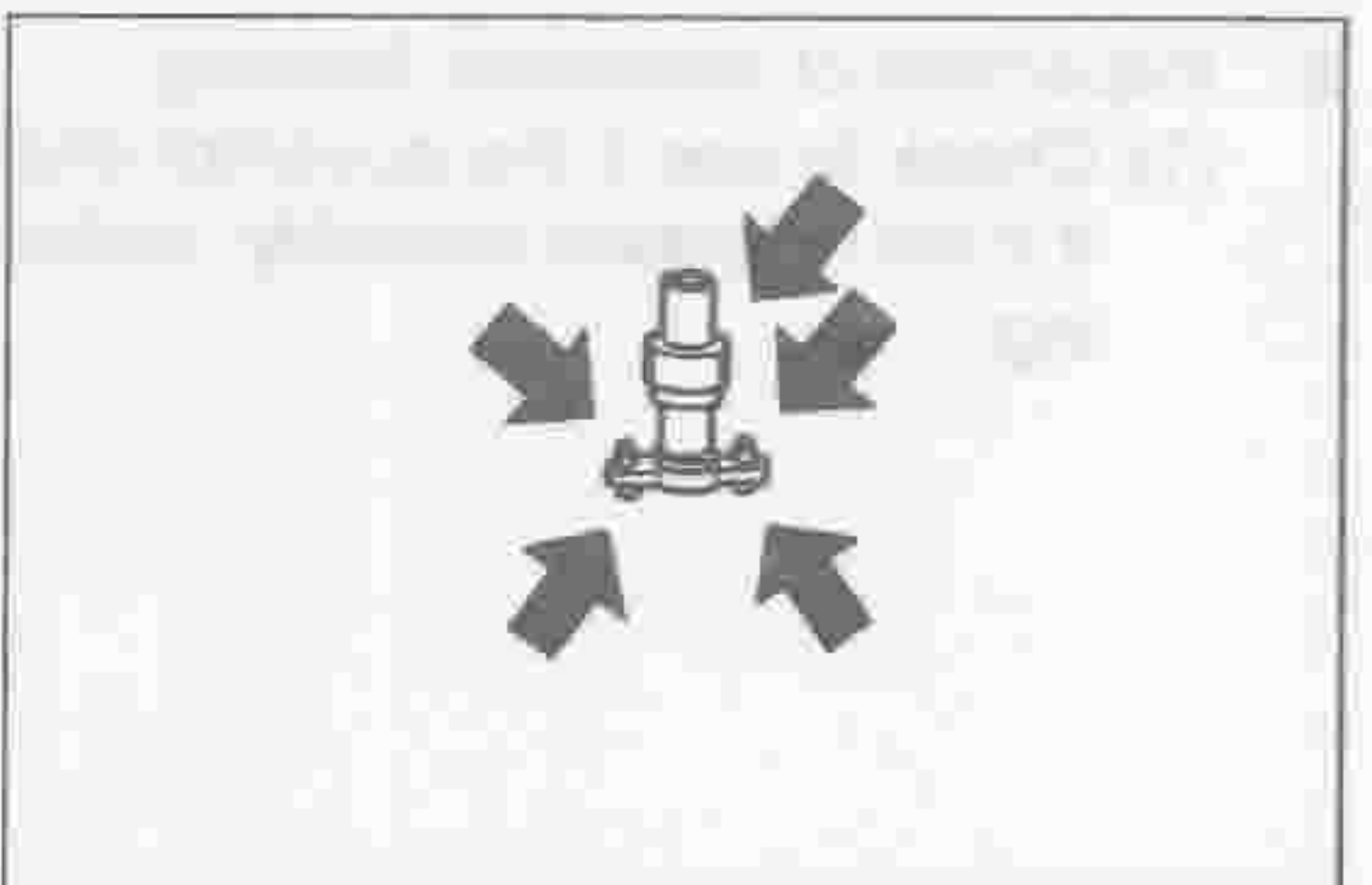
LIG00067-00062

## 4. Inspection of signal rotor assembly

- (1) Visually inspect the signal rotor for damage. Replace the signal rotor assembly if it exhibits damage.

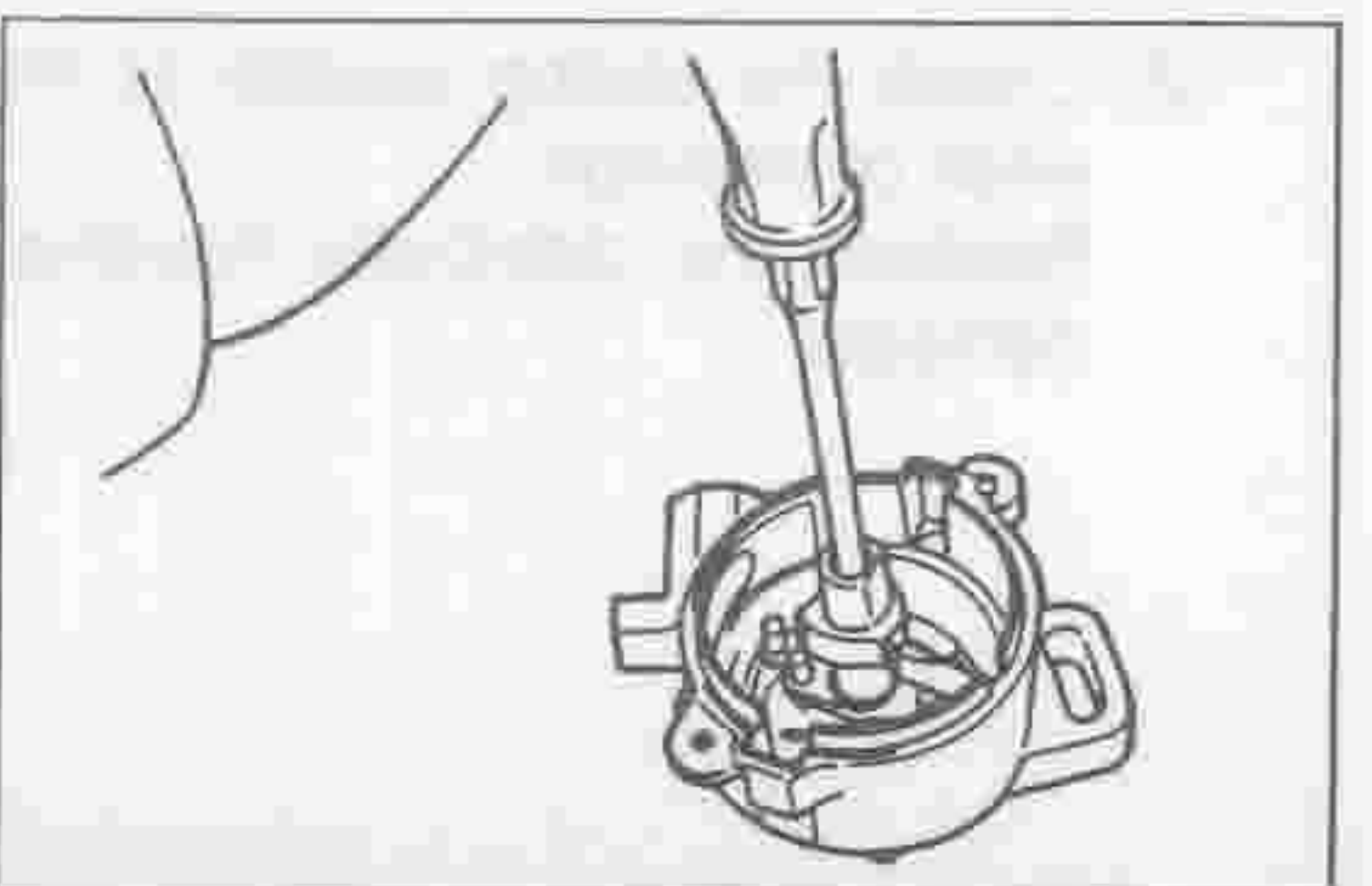
- (2) Check the pin section of the signal rotor assembly for wear or damage.

Replace the signal rotor assembly if the pin section exhibits wear or damage.



LIG00068-00063

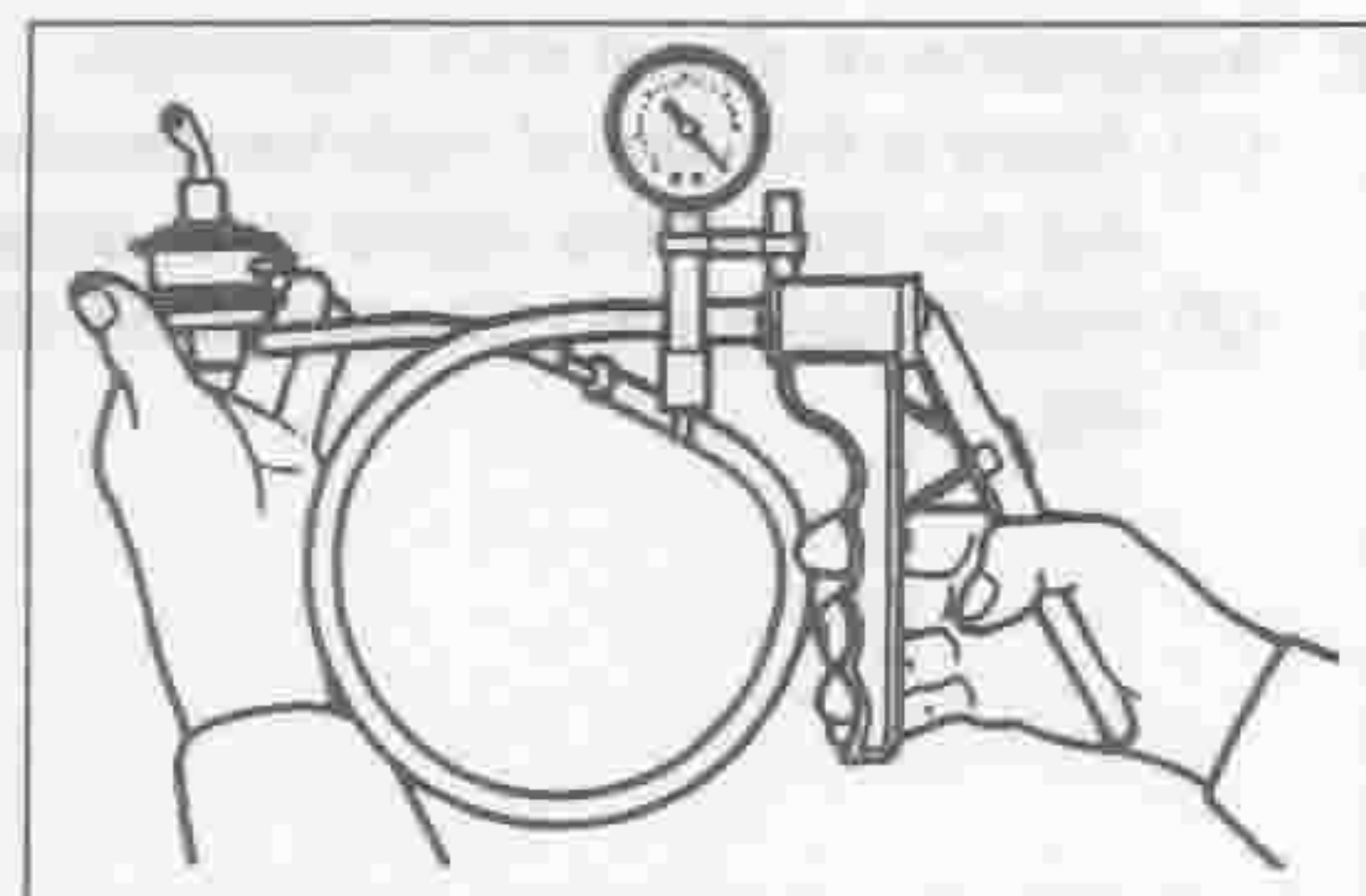
- (3) Install the signal rotor assembly to the governor shaft temporarily. Check to see if the signal rotor is tilted. Replace the signal rotor assembly and/or distributor housing if it is tilted.



LIG00069-00064

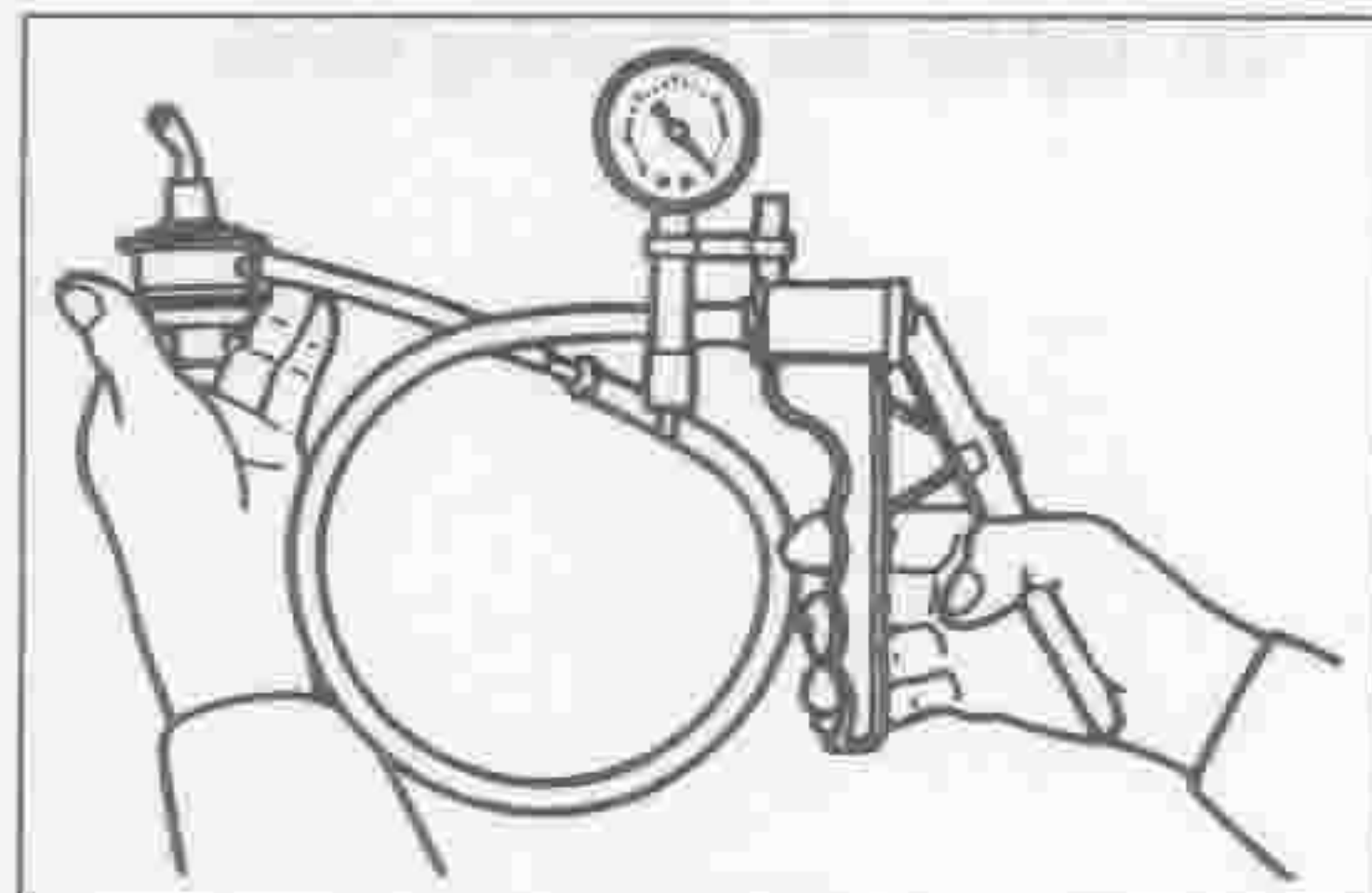
## 5. Inspection of vacuum advancer

- (1) Gradually apply a negative pressure to the main diaphragm of the vacuum advancer. Ensure that the rod of the vacuum advancer is drawn into the diaphragm room side, corresponding to the negative pressure. Replace the vacuum advancer if the rod will not be drawn.



LIG00070-00065

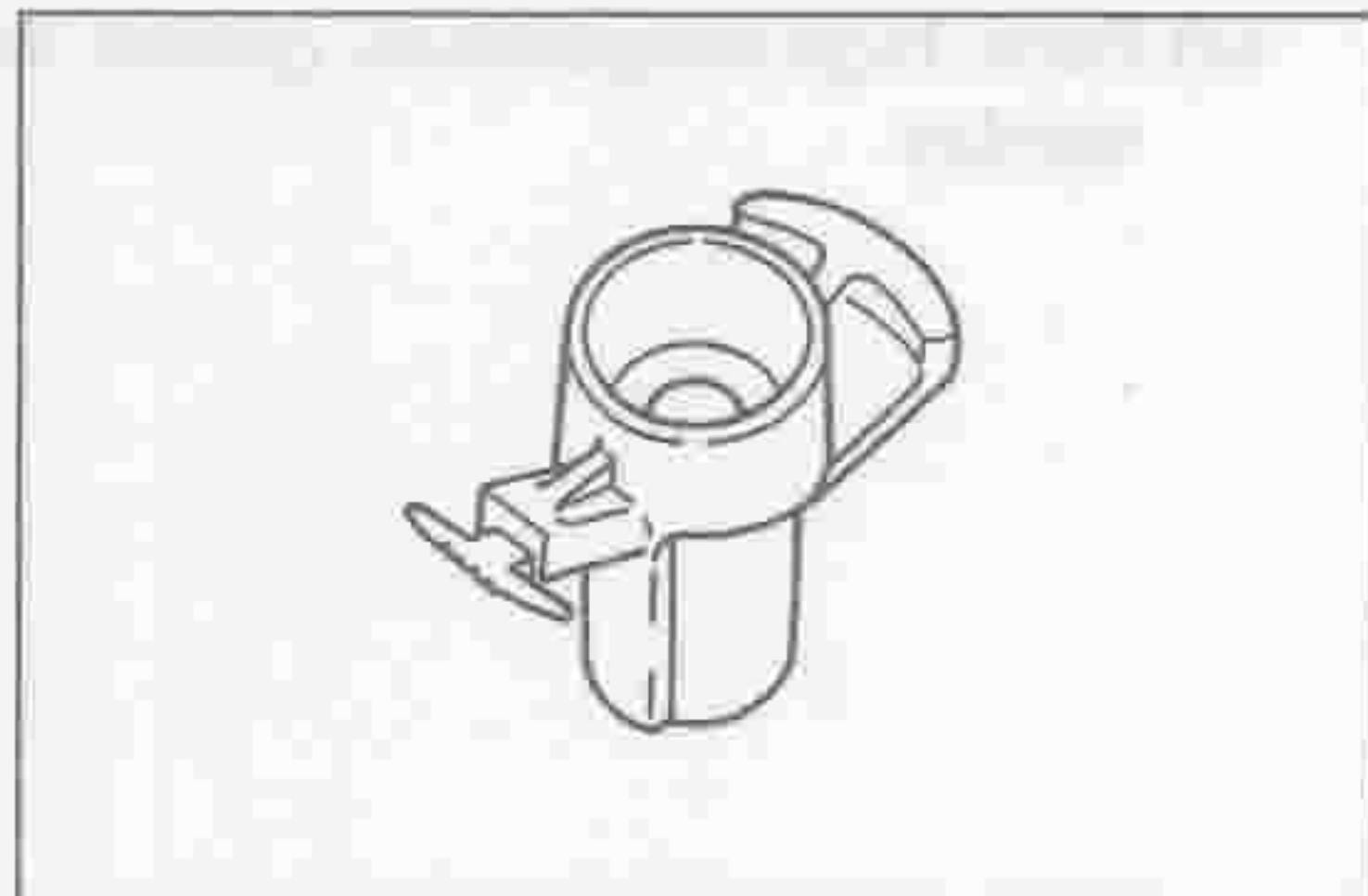
- (2) Gradually apply a negative pressure to the sub diaphragm of the vacuum advancer. Ensure that the rod of the vacuum advancer is drawn into the diaphragm room side, corresponding to the negative pressure. Replace the vacuum advancer if the rod will not be drawn.



LIG00071-00066

## 6. Inspection of rotor

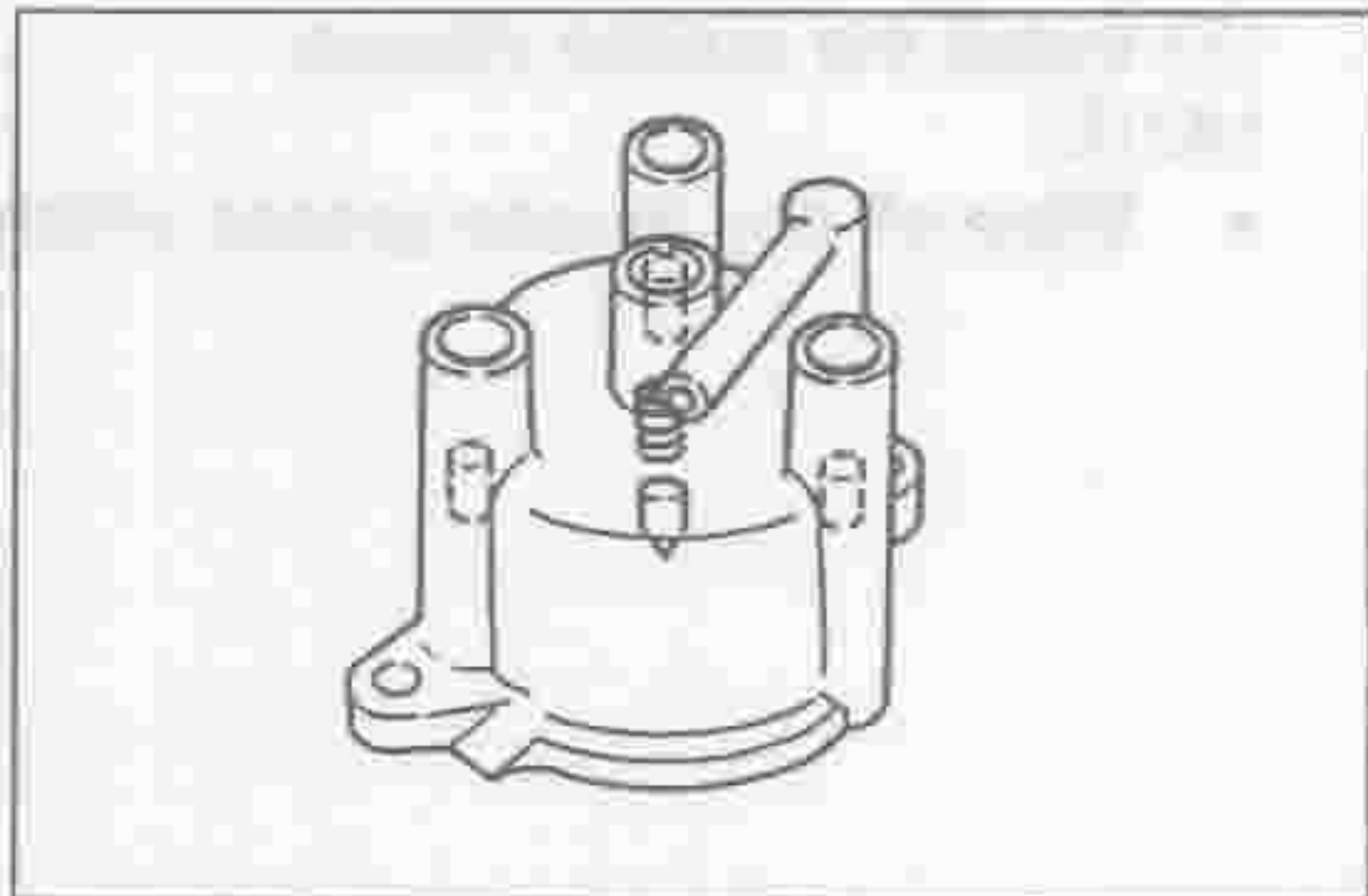
Check the center carbon contacting surface and electrode for damage, such as wear, electronic corrosion and cracks. If the surface or electrolytic exhibits damage, replace the rotor, as required.



LIG00072-00067

## 7. Inspection of distributor cap

Check the distributor cap for cracks. Also, check the electrode and center carbon for damage, such as wear. Replace the distributor cap if the cap, electrode or carbon exhibits damage.



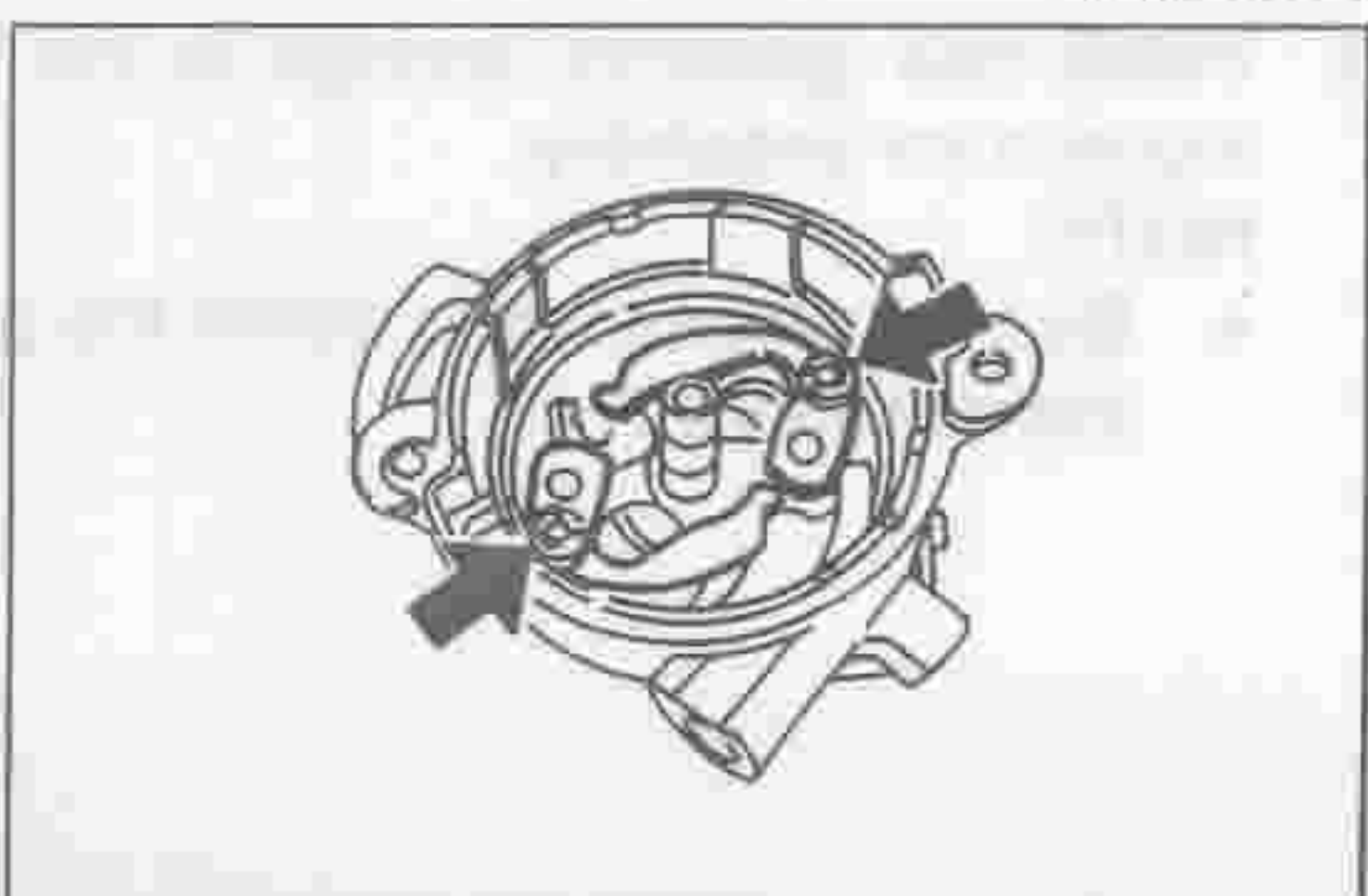
LIG00073-00068

## ASSEMBLY OF DISTRIBUTOR

1. Install the governor weight to the distributor housing. Install the snap washer.

### NOTE:

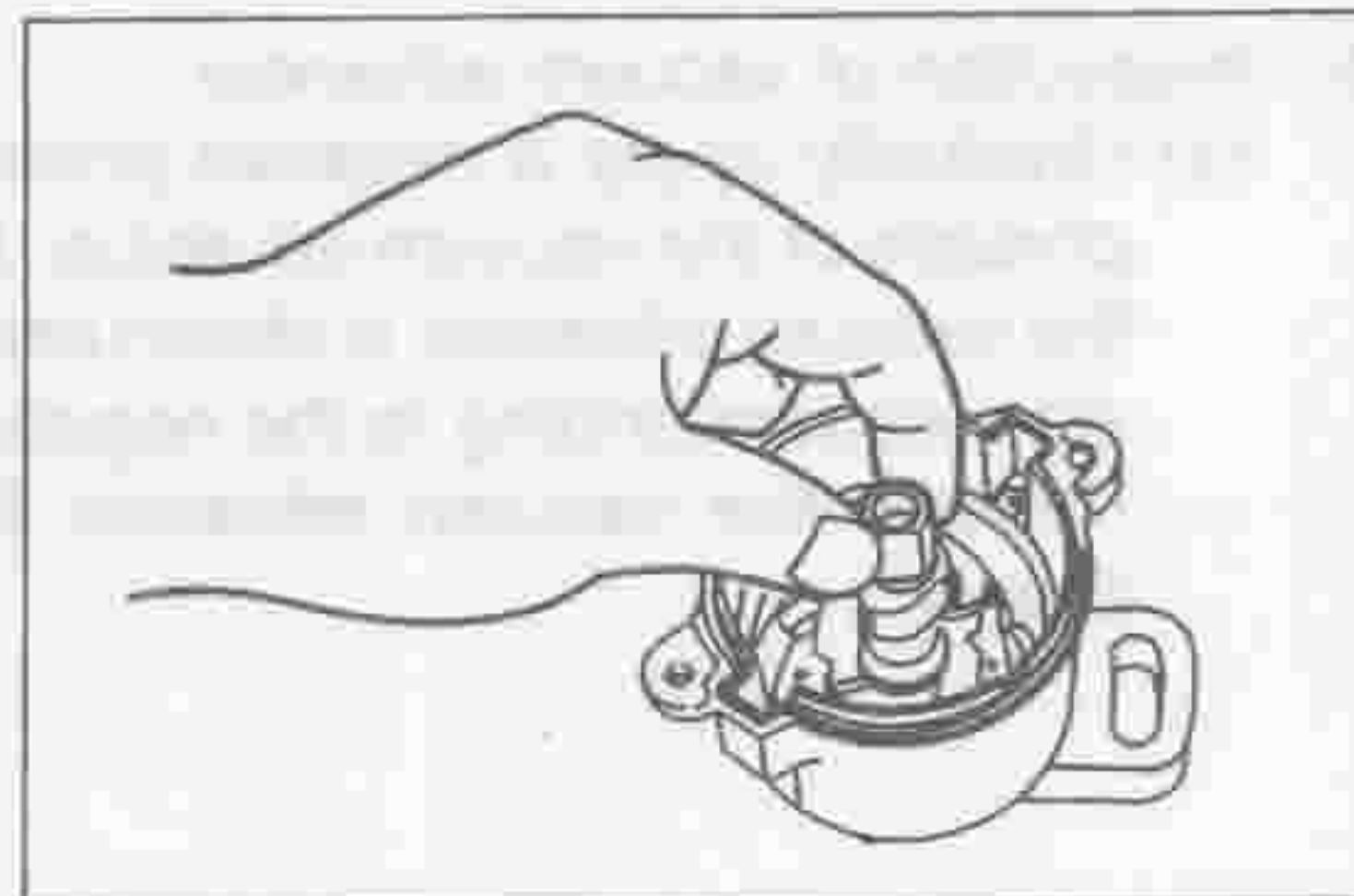
- Apply a thin film of high-temperature grease to the sliding section.



LIG00074-00069

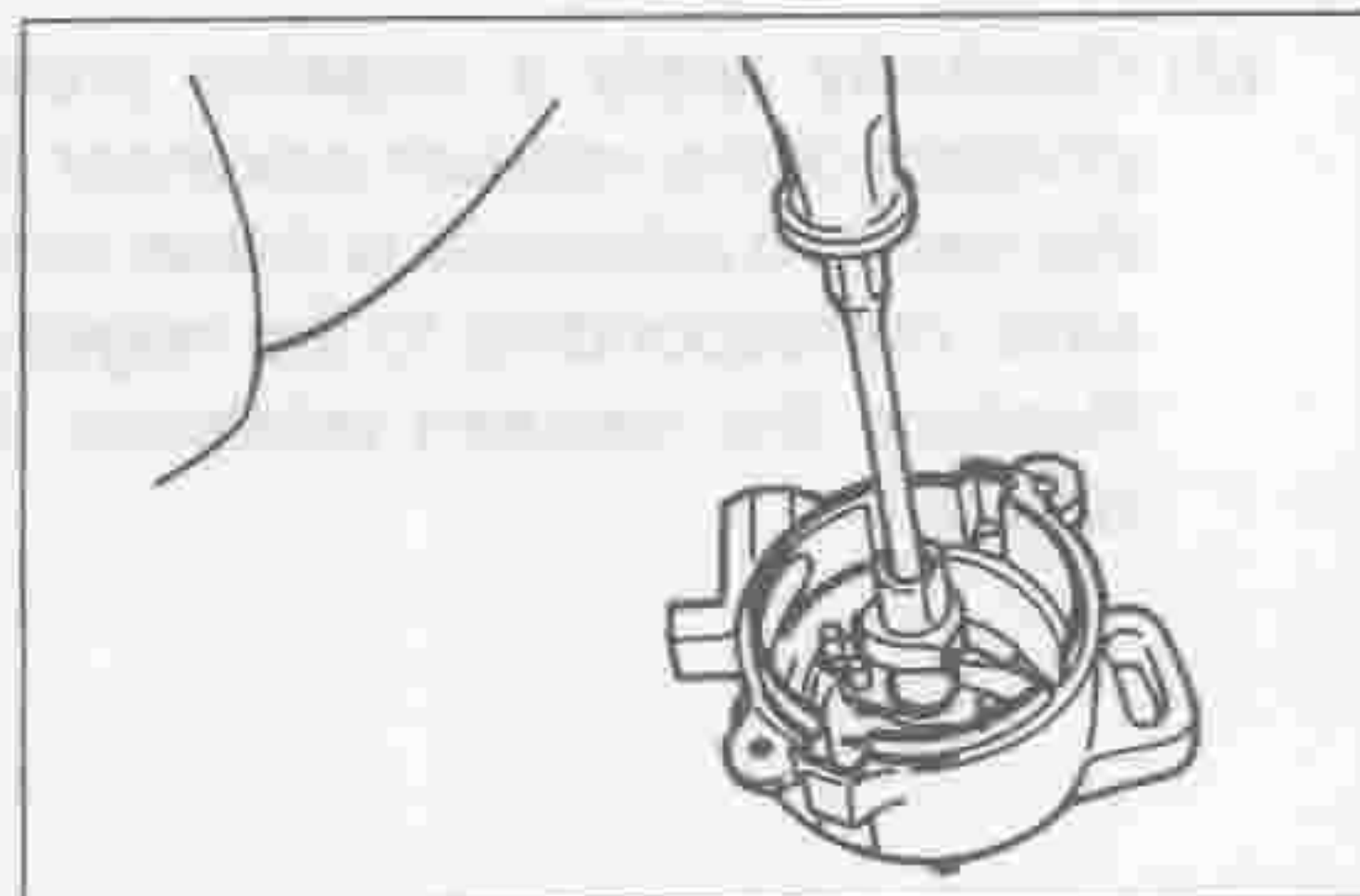
## 2. Installation of signal rotor assembly

- (1) Apply a thin film of high-temperature grease to the sliding section of the signal rotor assembly.
- (2) Install the signal rotor assembly to the distributor housing.



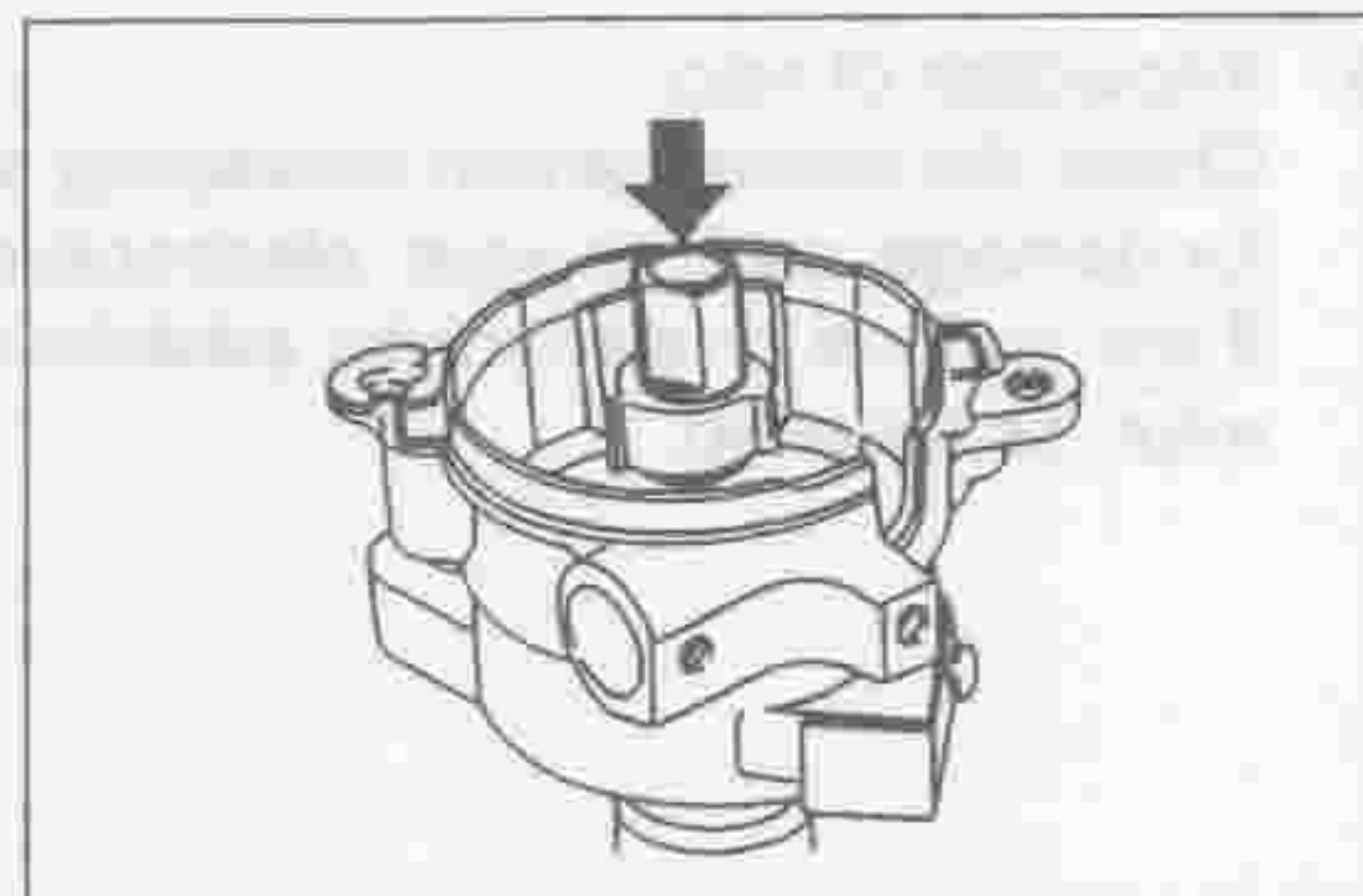
LIG00075-00070

- (3) Tighten the attaching screw.



LIG00076-00071

- (4) Pack high-temperature grease in the signal rotor assembly.

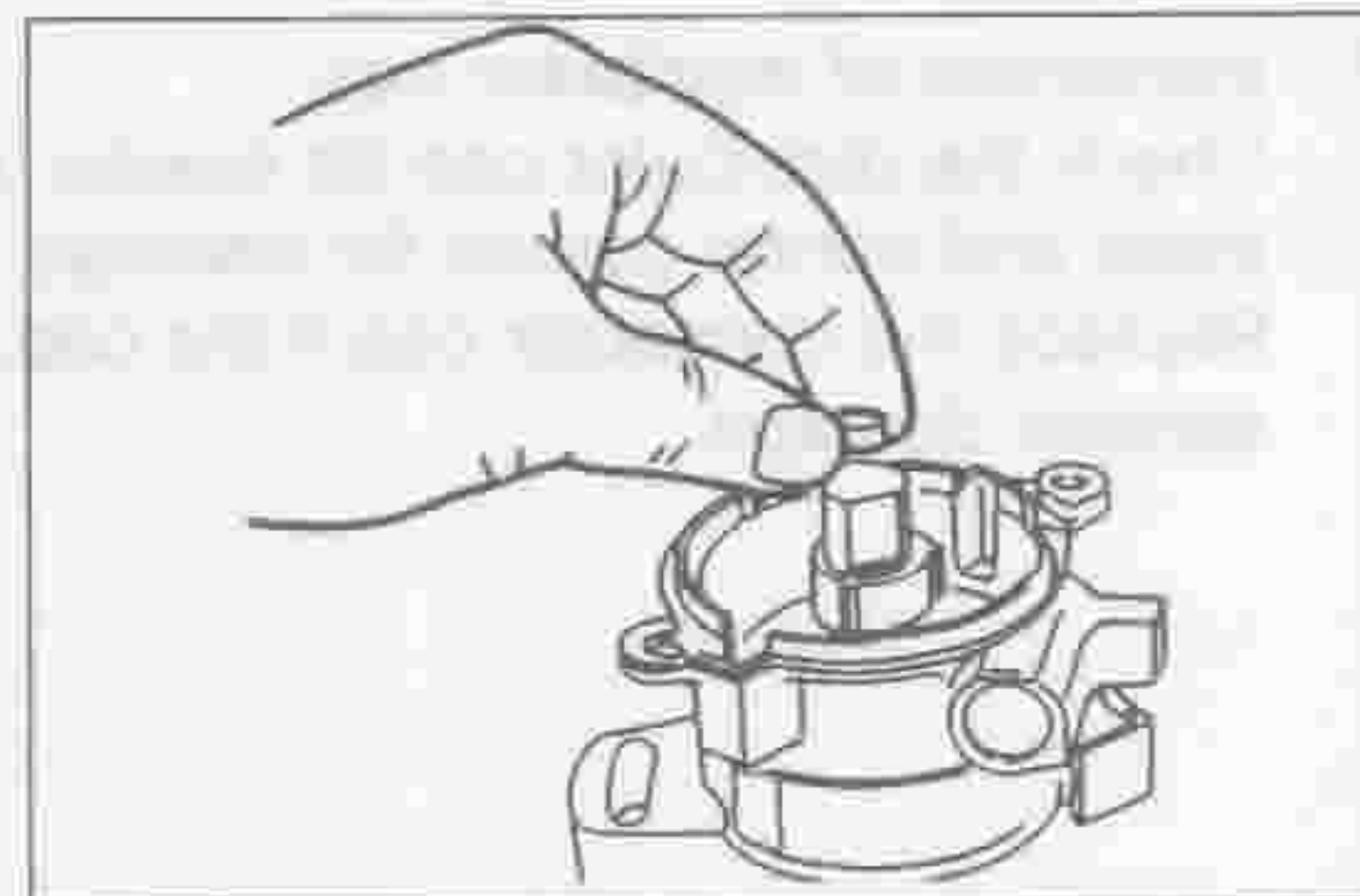


LIG00077-00072

- (5) Install the grease stopper.

### NOTE:

- Wipe off any excess grease which has oozed out.

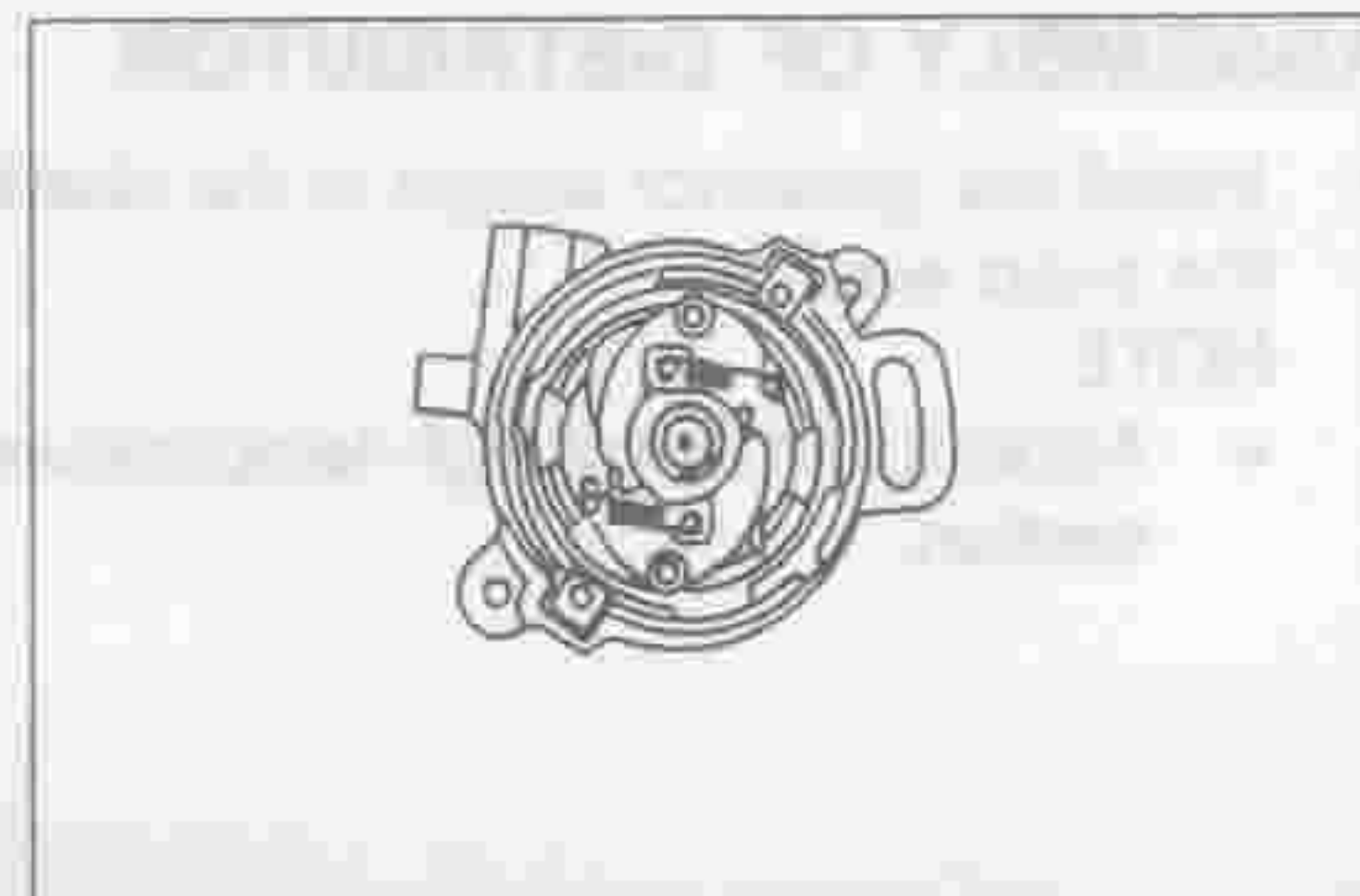
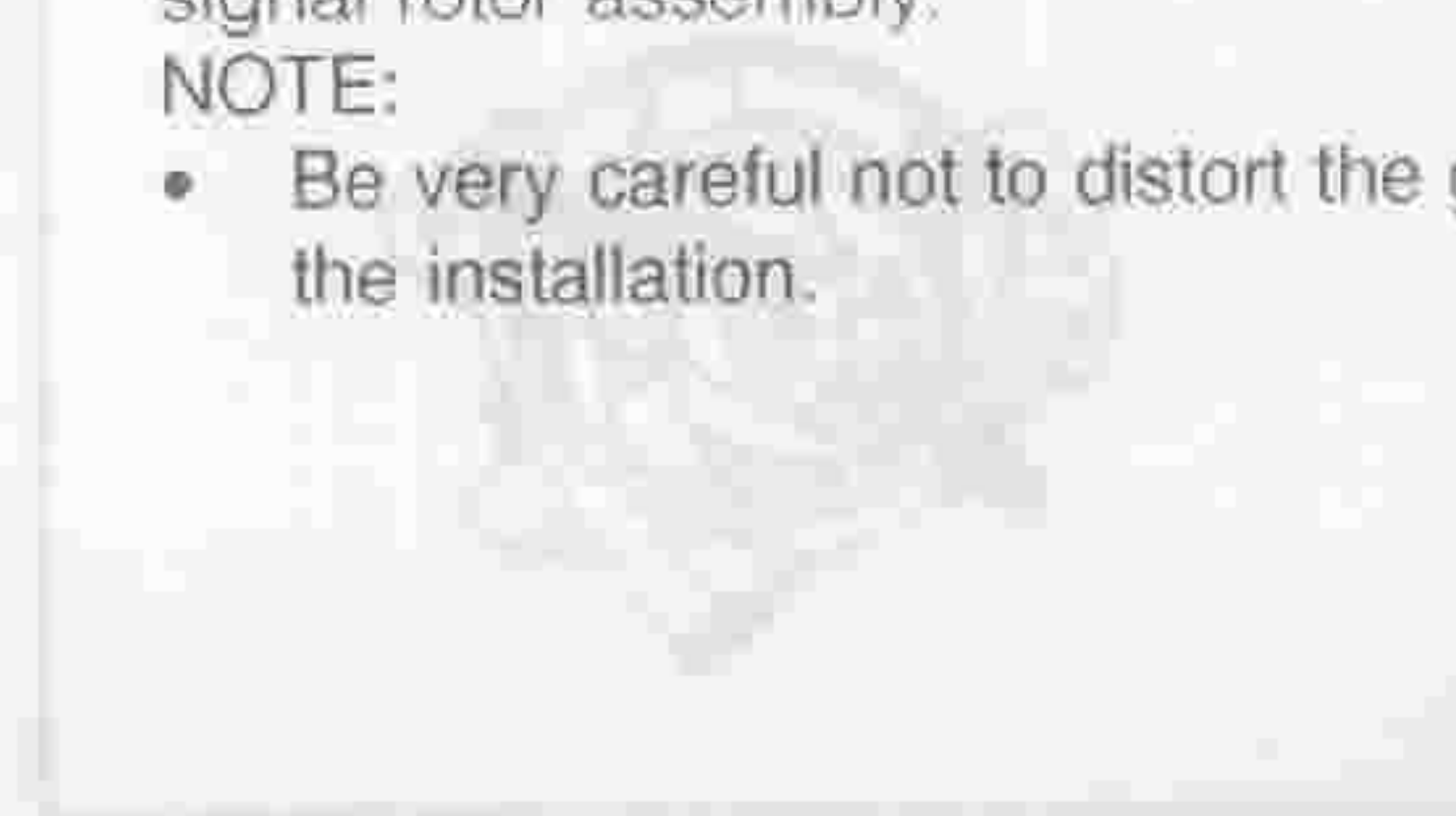


LIG00078-00073

## 3. Install new governor springs to the governor weight and signal rotor assembly.

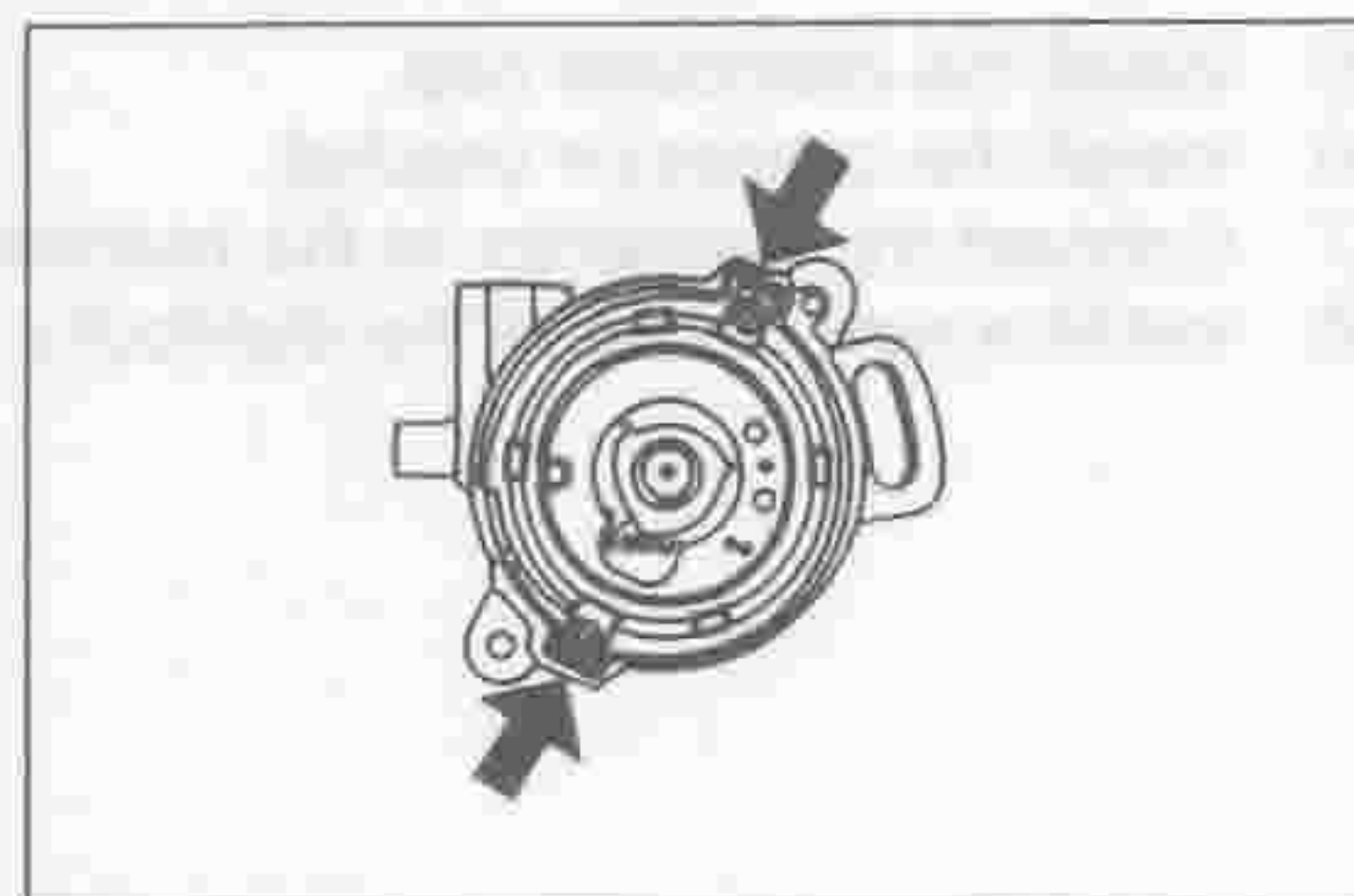
### NOTE:

- Be very careful not to distort the governor spring during the installation.



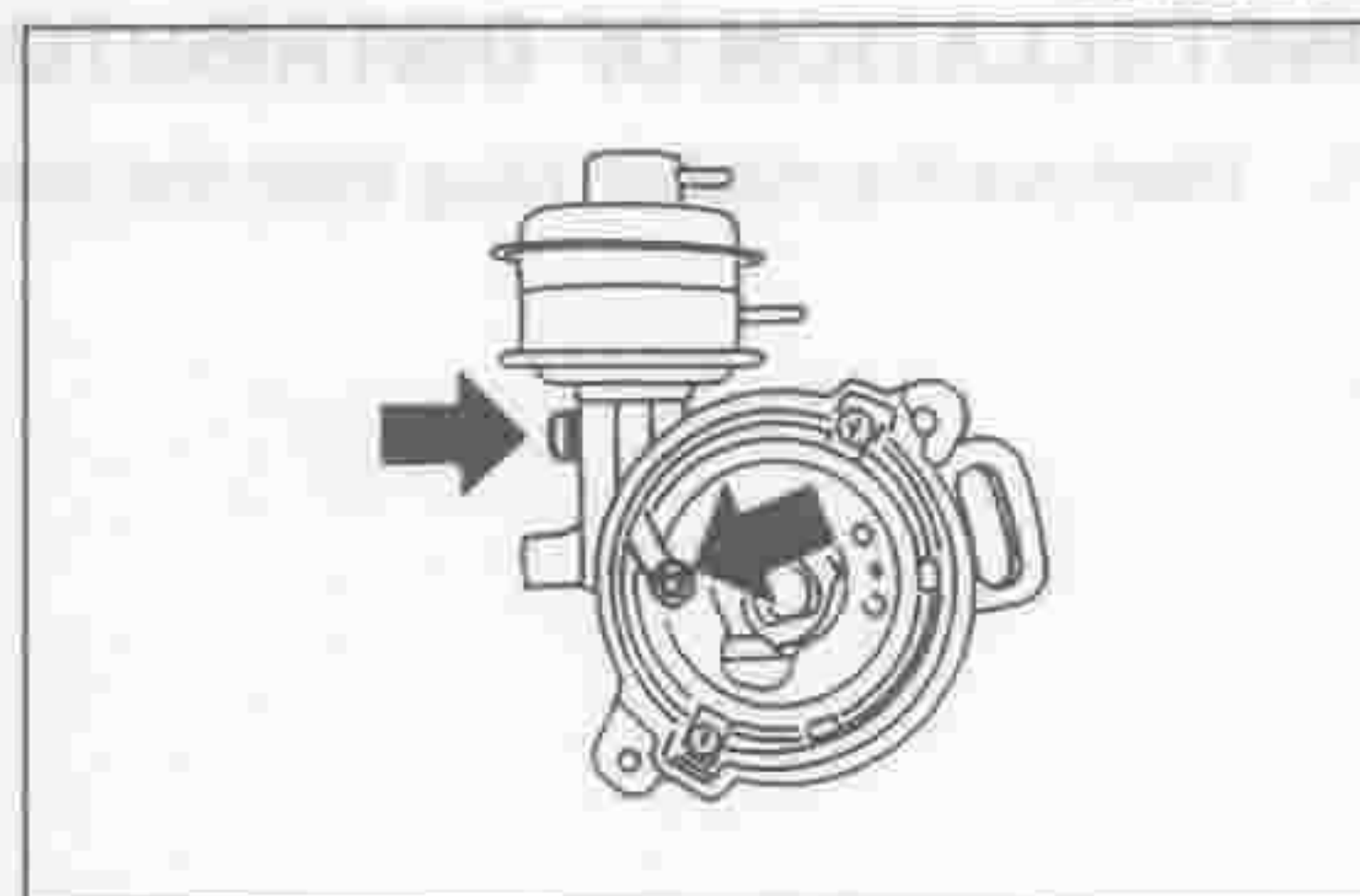
LIG00079-00074

4. Assemble the stationary plate, lining up the cut-out section of the distributor housing.
5. Install the stationary plate with the attaching plates and the two screws.



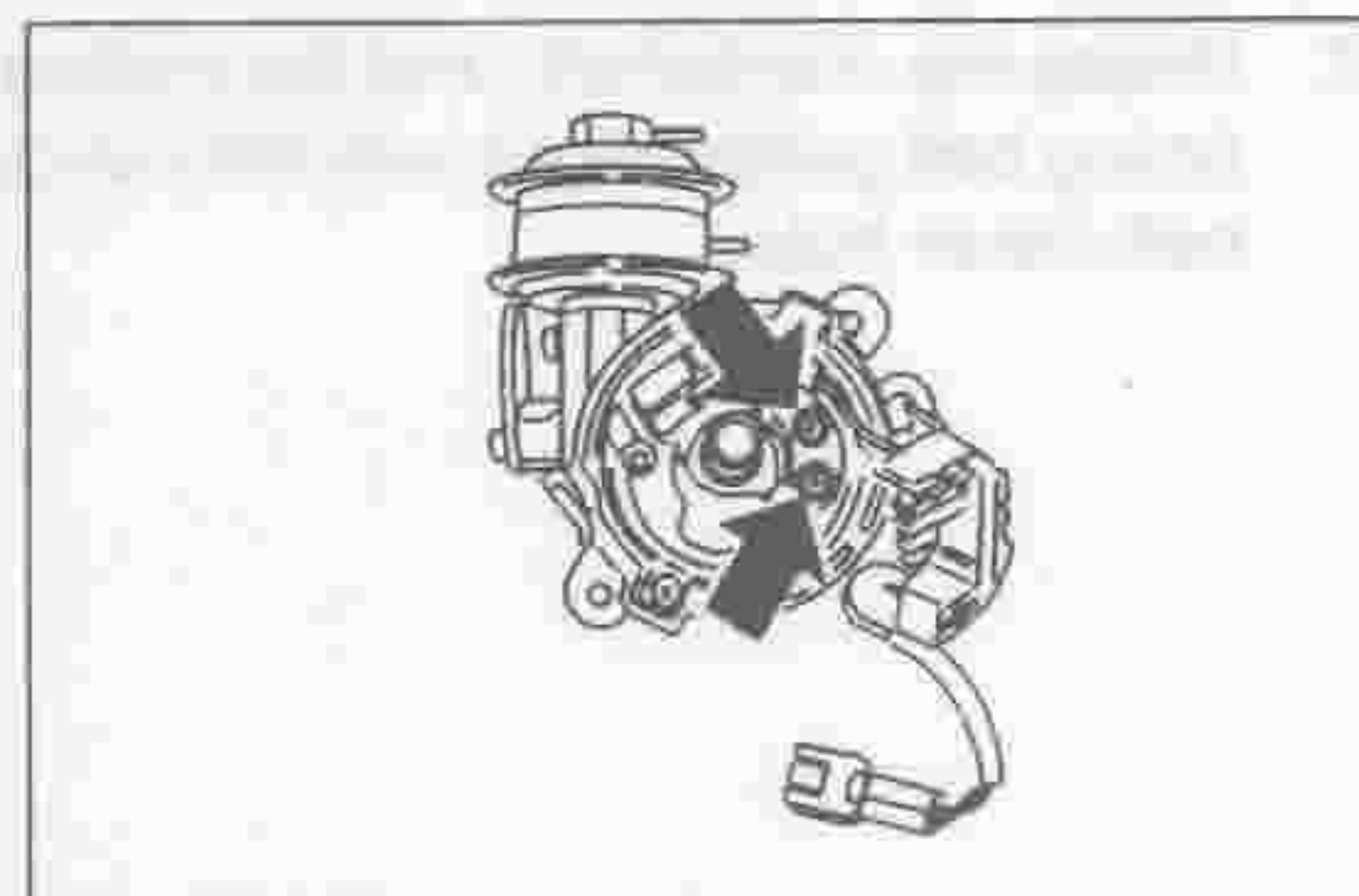
LIG00080-00075

6. Insert the vacuum advancer into the distributor housing with a new gasket interposed.
7. Connect the vacuum advancer to the pin of the stationary inner plate.
8. Install the snap washer.
9. Align the screw hole of the vacuum advancer with the screw hole of the distributor housing.
10. Tighten the attaching screw.



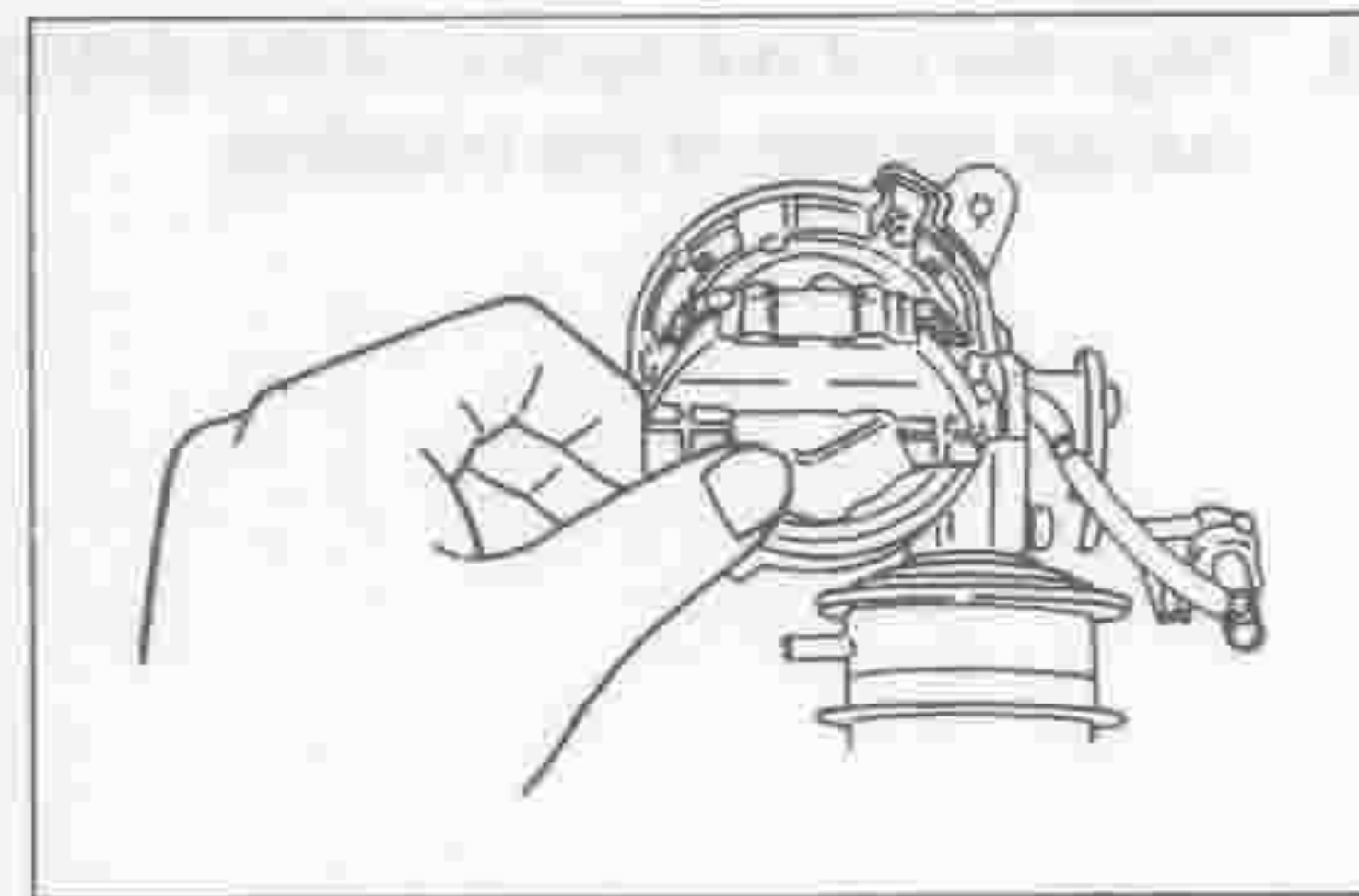
LIG00081-00076

11. Installation of signal generator  
Install the signal generator to the stationary plate. Adjust the air gap in such a way that the air gap in relation to the signal rotor is 0.2 - 0.4 mm.  
(See page IG-7.)



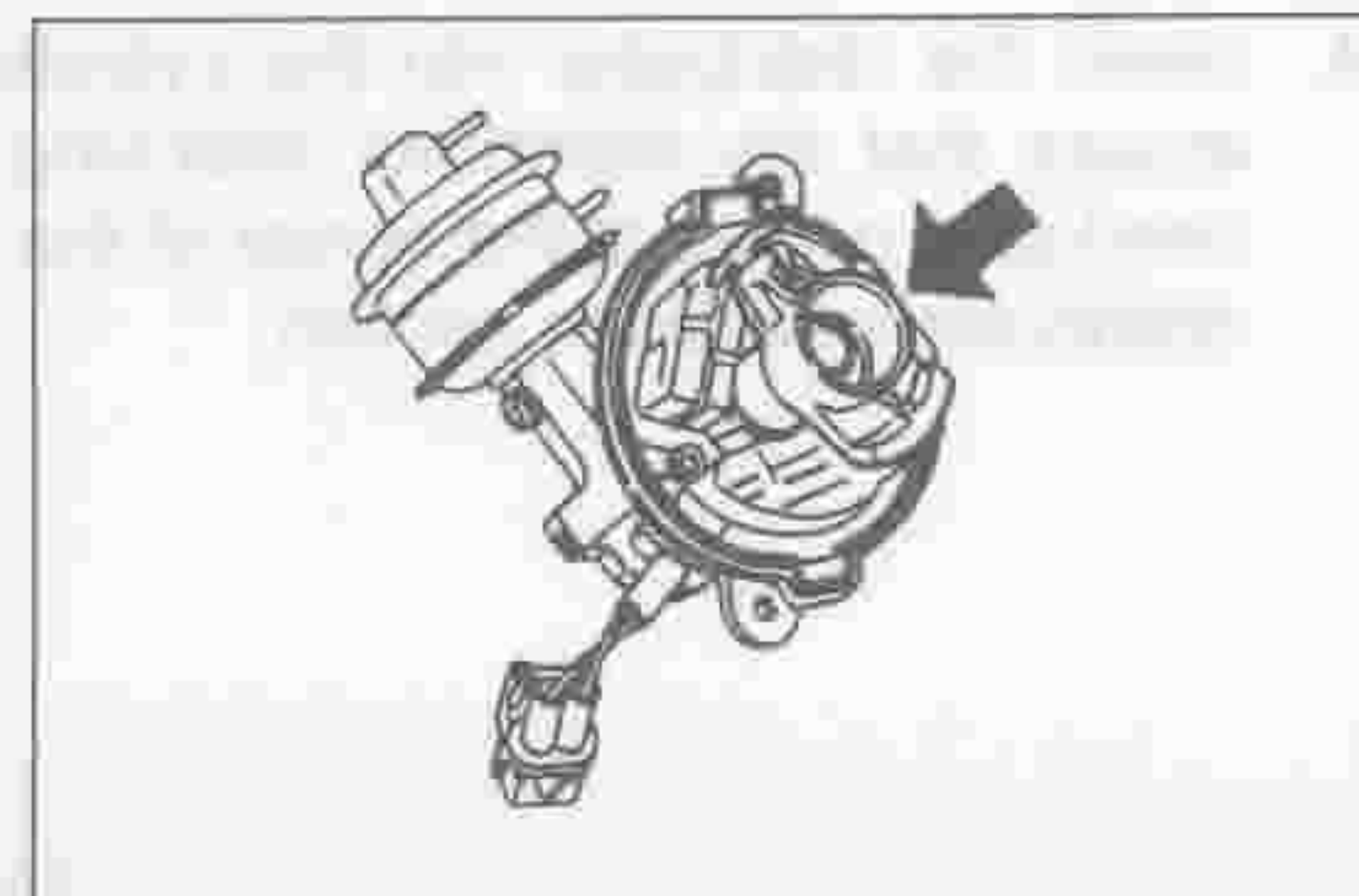
LIG00082-00077

12. Install the ignitor.  
(See page IG-9.)



LIG00083-00078

13. Install a new gasket.
14. Install the rotor.

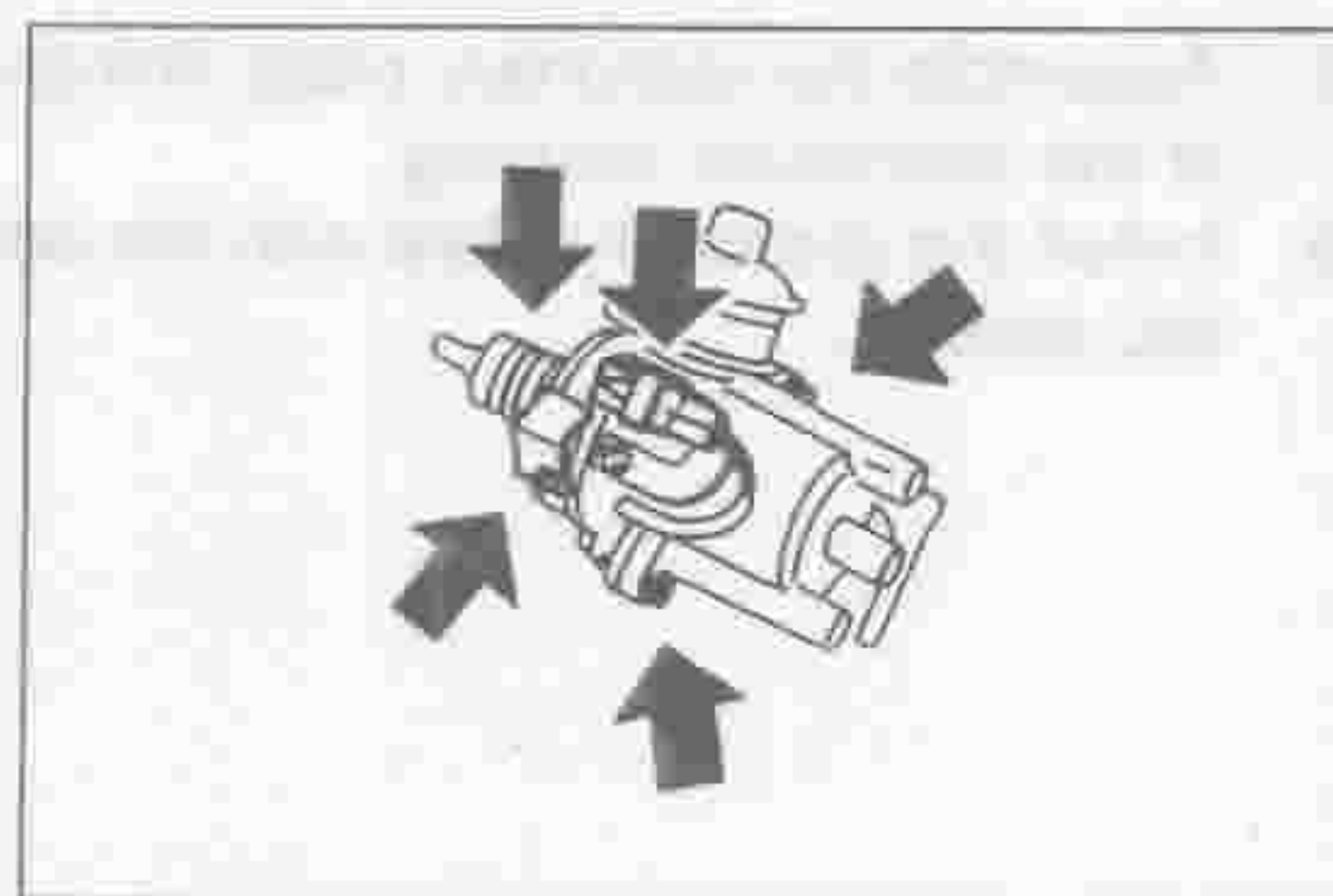


LIG00084-00079

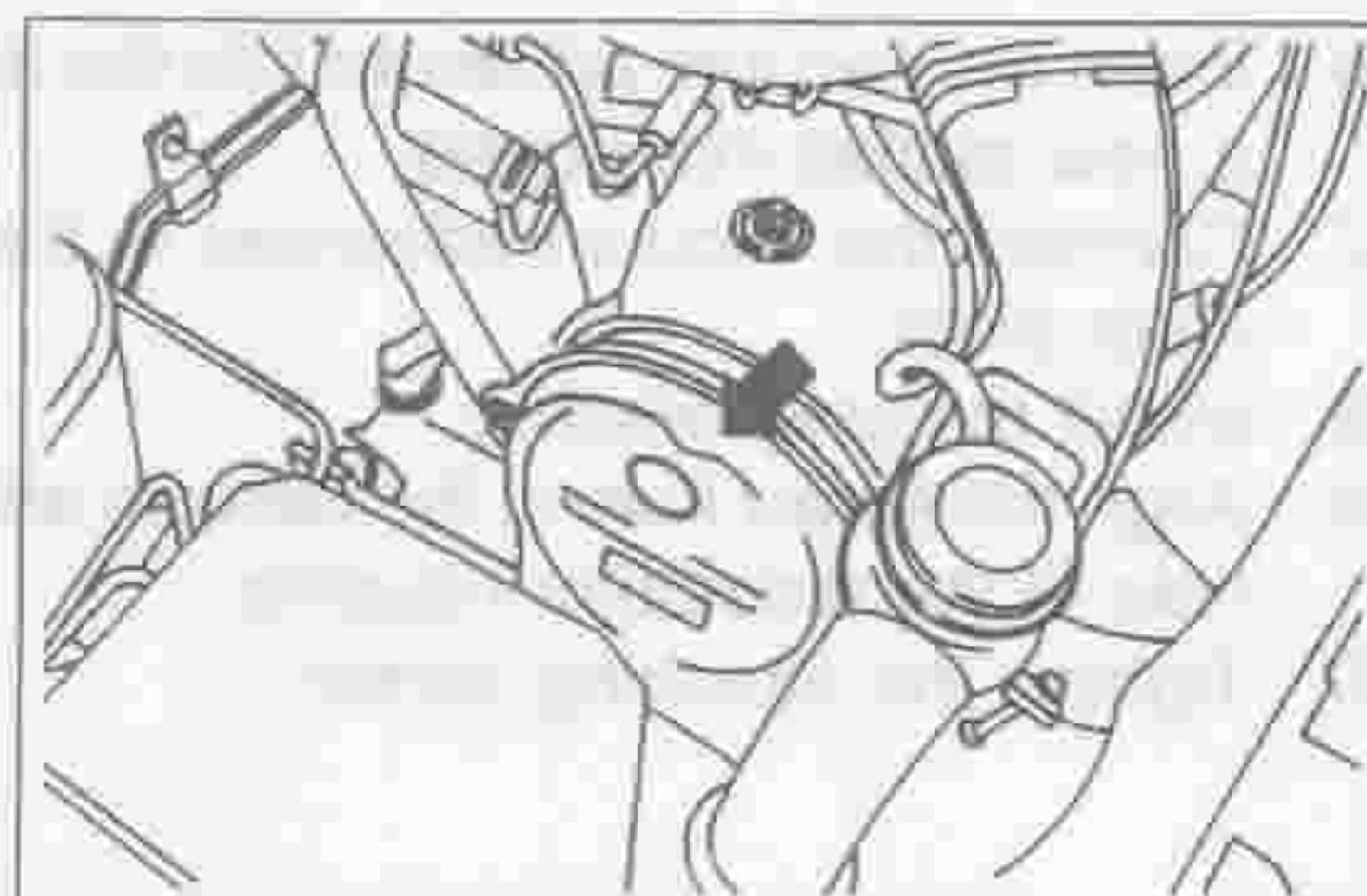
15. Install the distributor cap.
16. Install the connector bracket.
17. Connect the connector to the bracket.
18. Install a new O-ring to the distributor housing.

## INSTALLATION OF DISTRIBUTOR

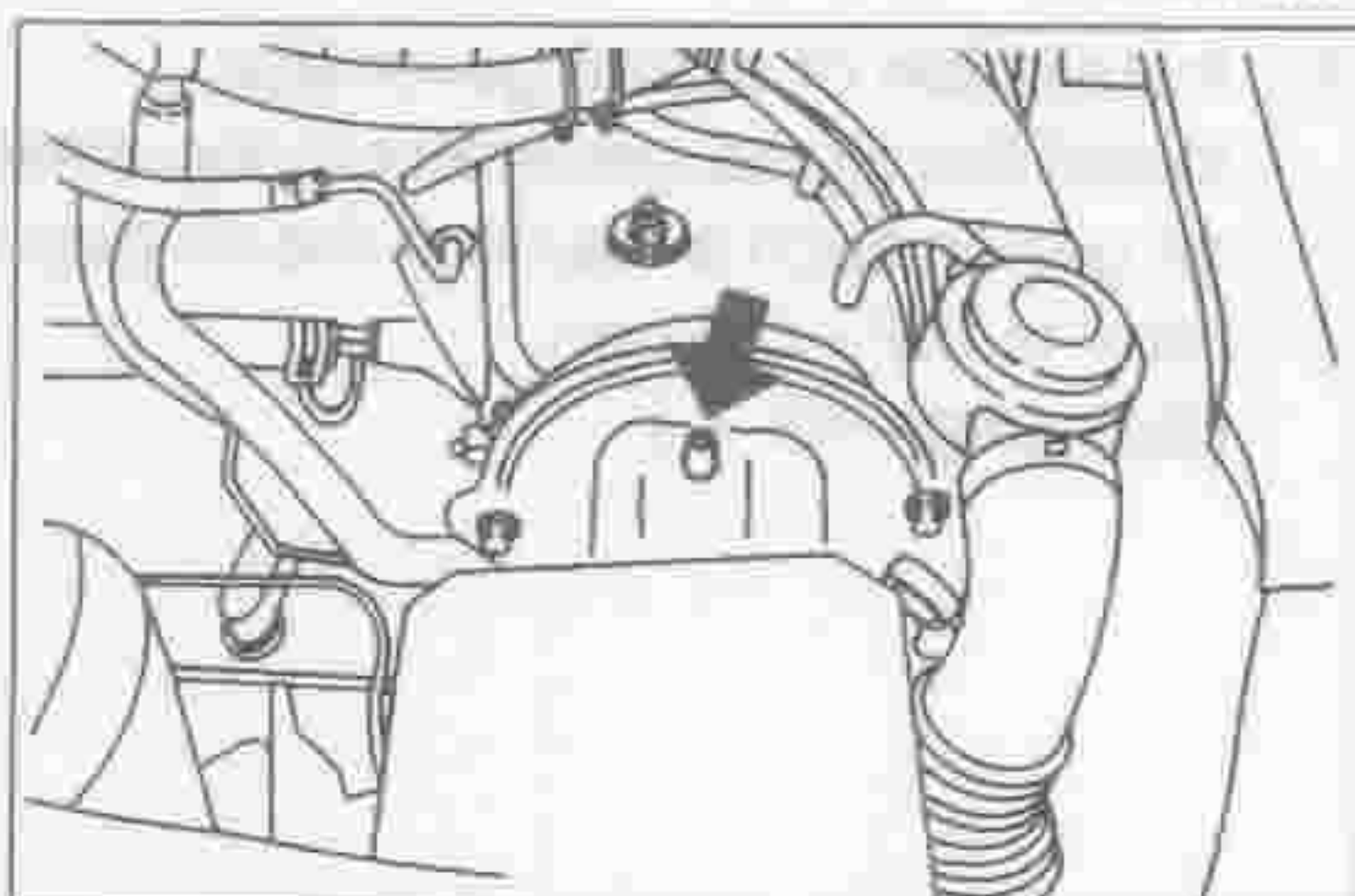
1. Remove the rubber plug from the timing belt cover.
2. Rotate the crankshaft, until the mating mark of the camshaft timing belt pulley aligns with the cut-out section of the timing belt cover hole.
3. Align the cut-out section of the distributor housing with the cut-out section of the coupling.
4. Insert the distributor into the cylinder head. At this time, ensure that the distributor attaching hole at the cylinder head side comes at the center of the elongated hole of the distributor installation section.



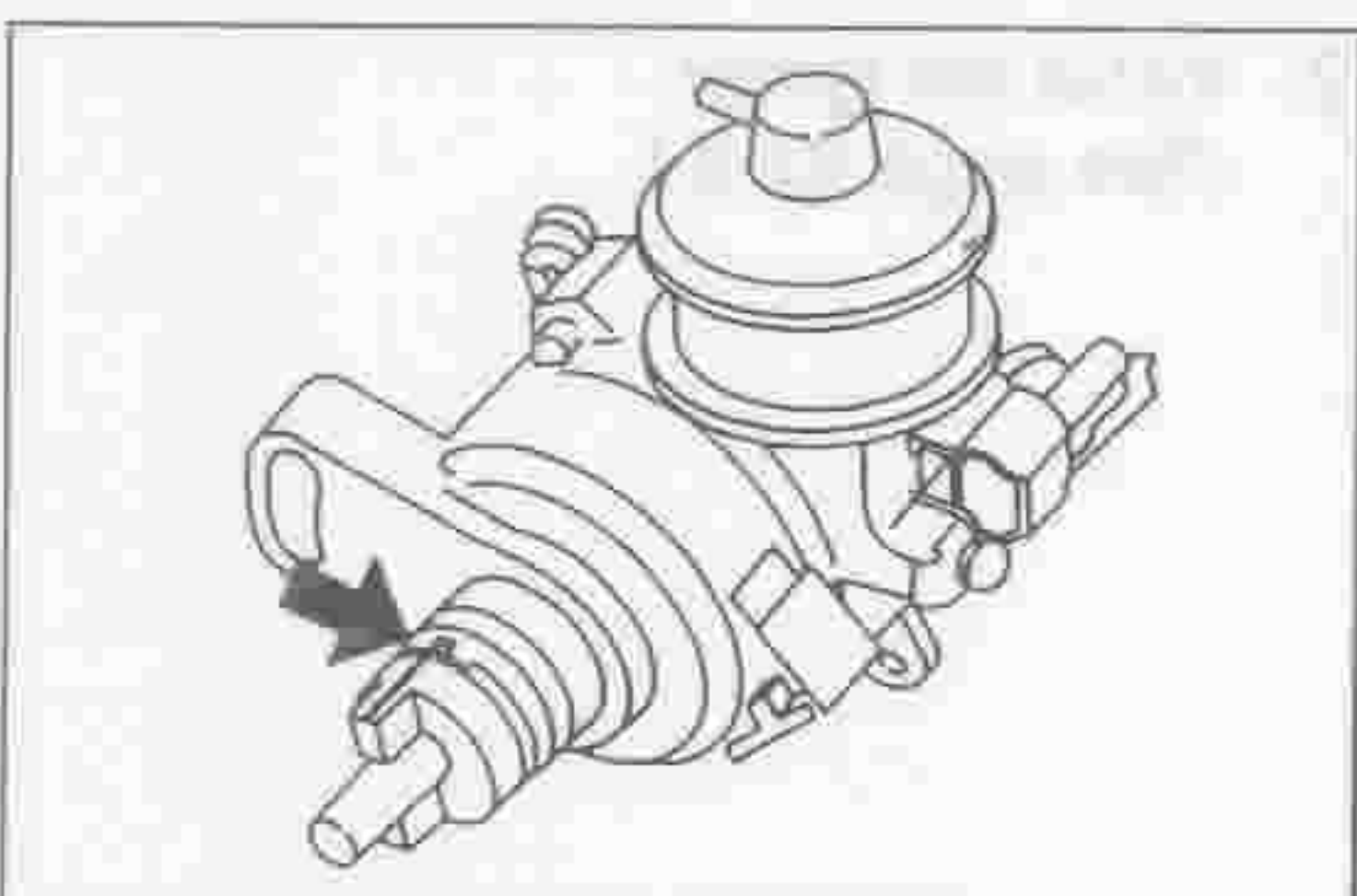
LIG00085-00080



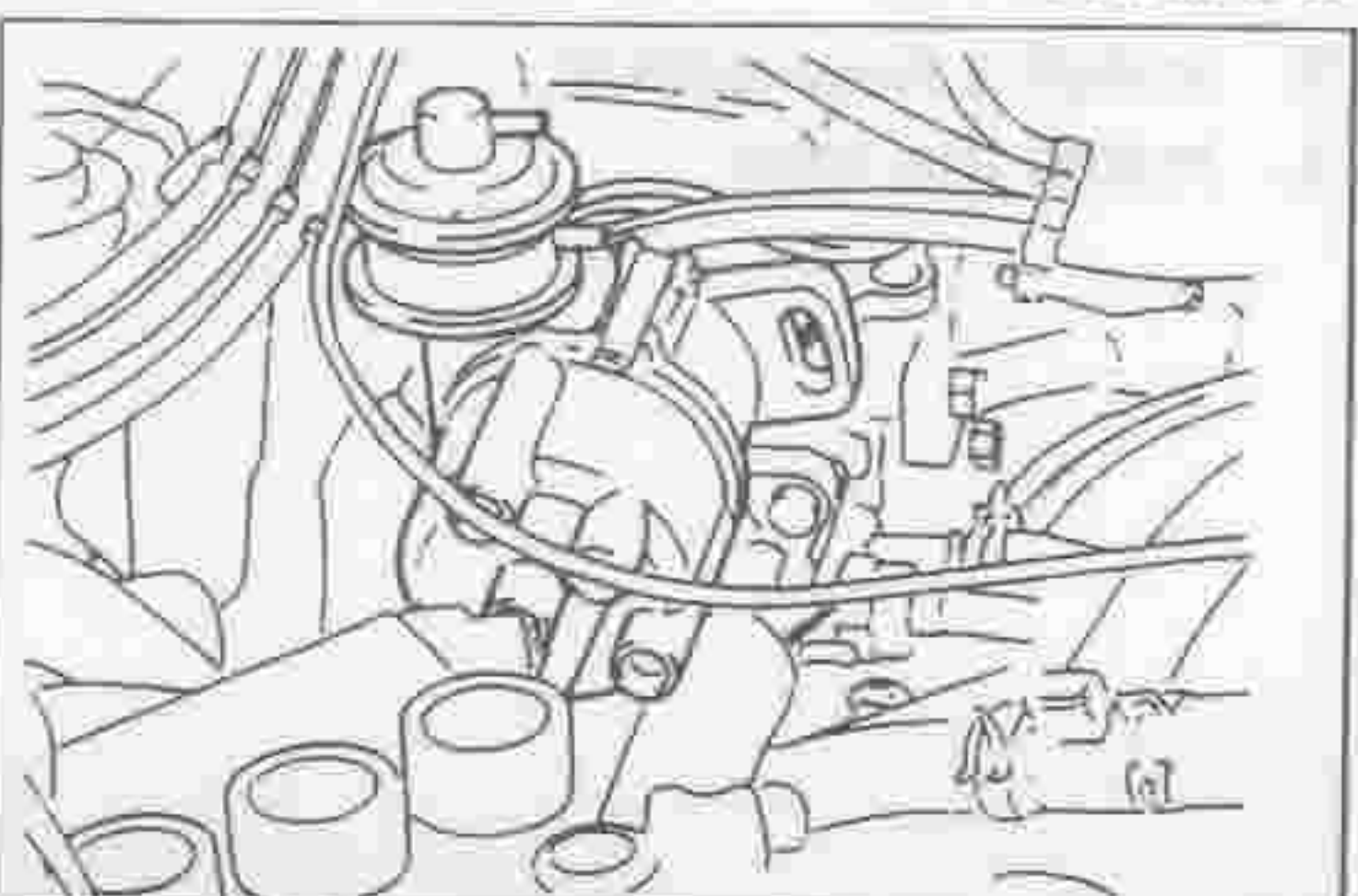
LIG00086-00081



LIG00087-00082



LIG00088-00083

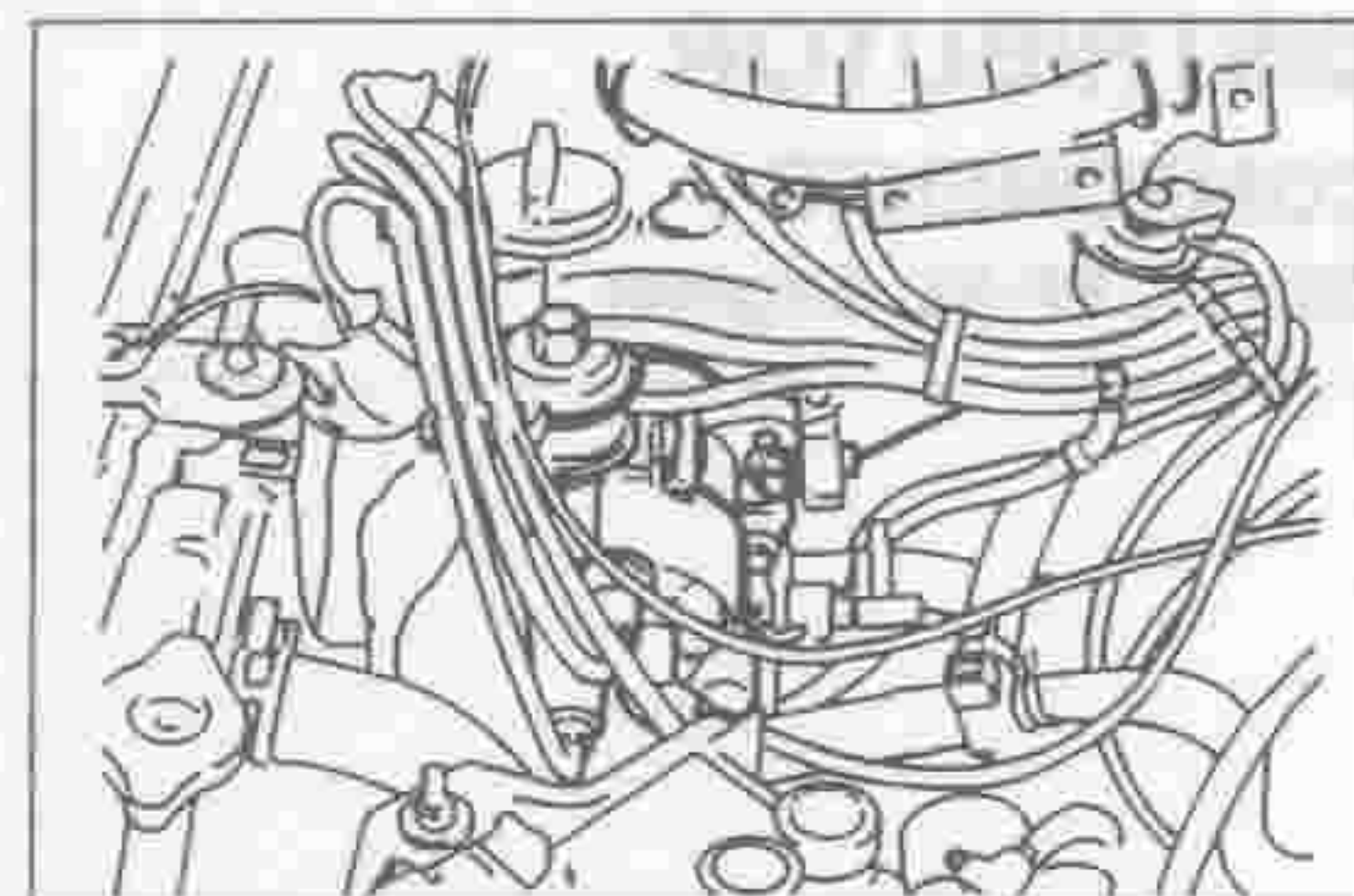


LIG00089-00084

5. Temporarily tighten the distributor retaining bolt.

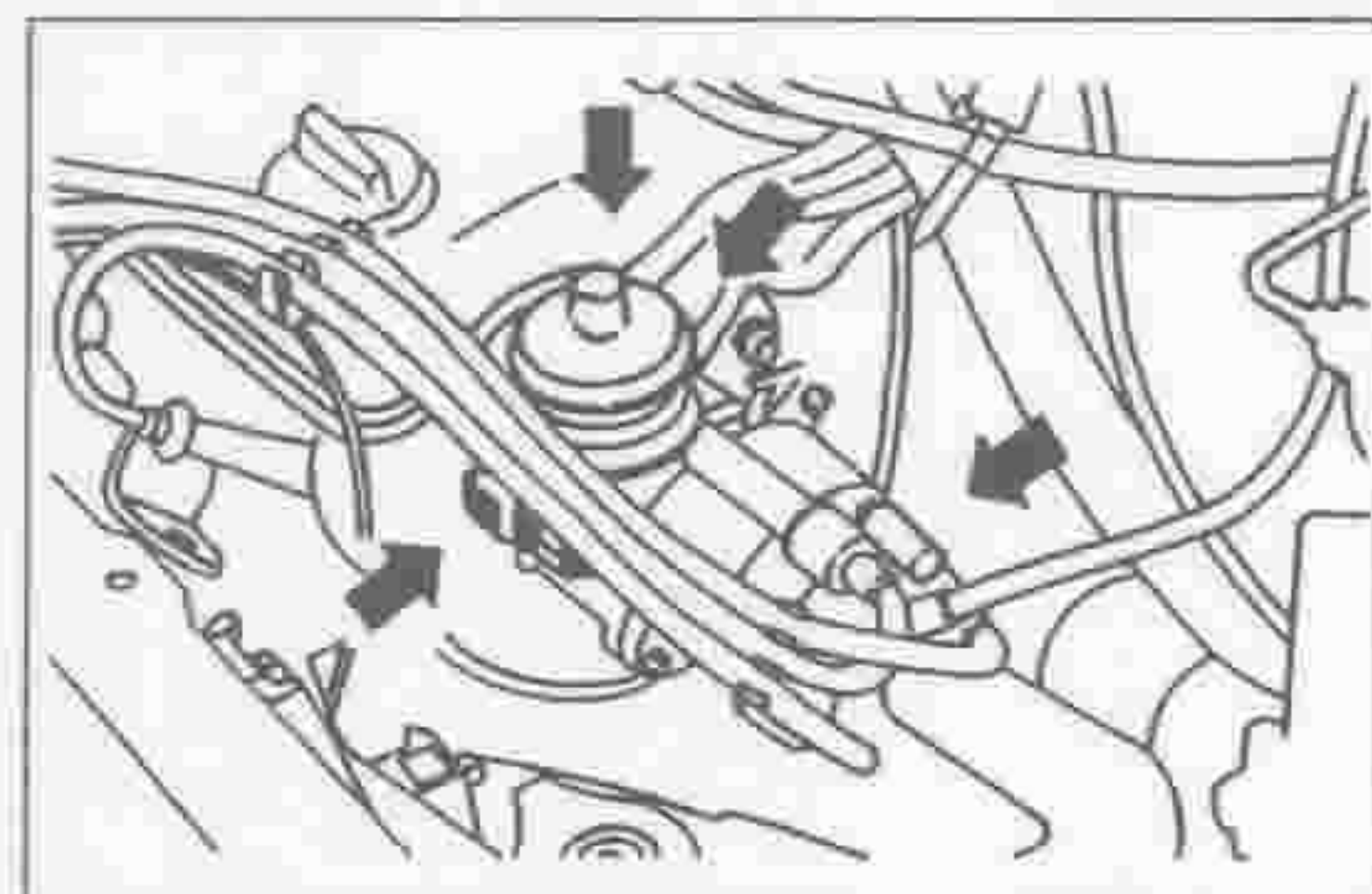
**NOTE:**

- The final tightening should be performed after the check and adjustment of the ignition timing have been completed.



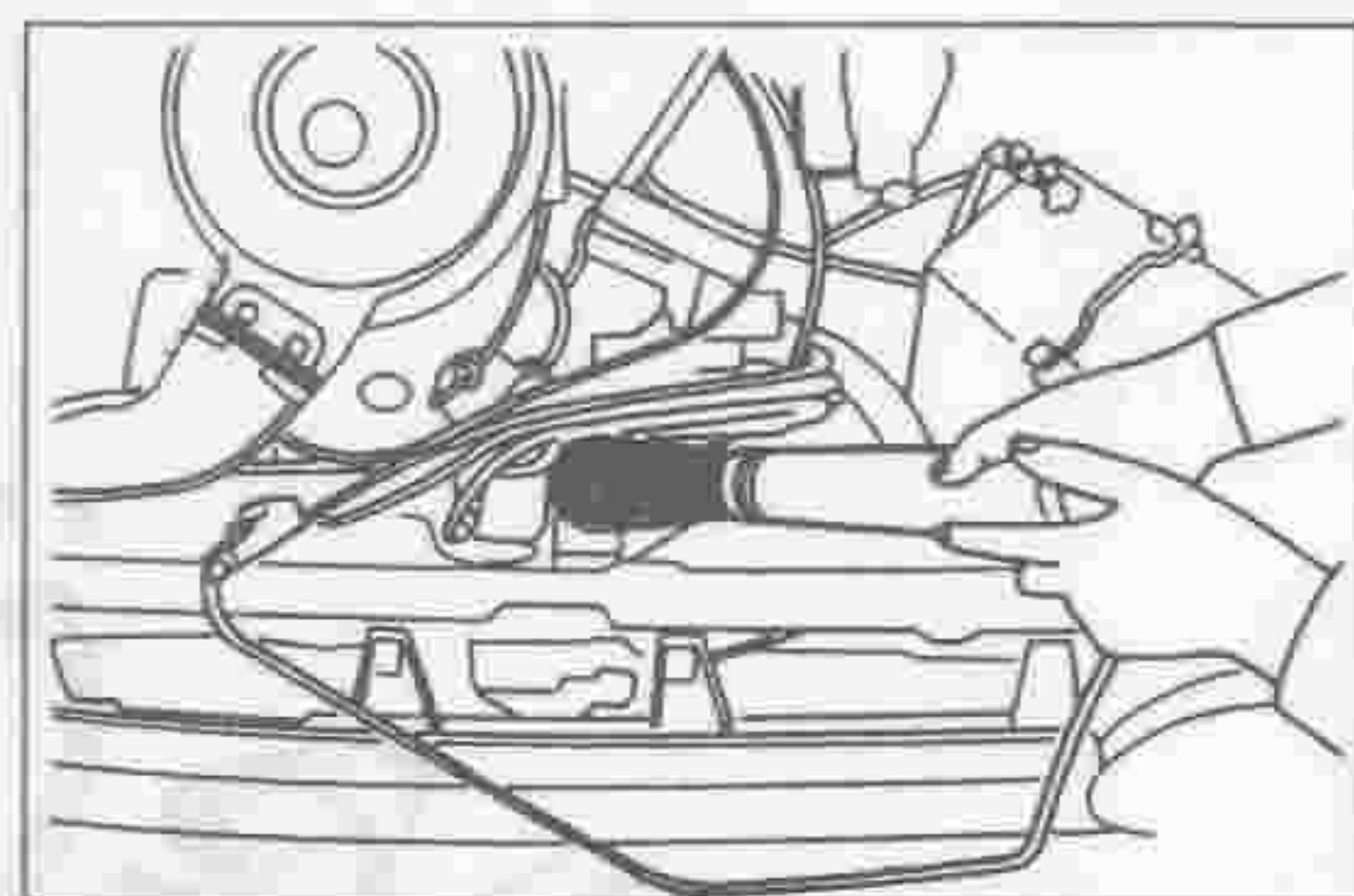
LIG00090-00085

6. Connect the connector.
7. Connect the vacuum hoses to the vacuum advancer.
8. Connect the resistive cords to the distributor cap.



LIG00091-00086

9. Connect the battery ground cable terminal to the negative (-) terminal of the battery.
10. Check and adjustment of ignition timing.
11. Ensure that no oil leakage is present.



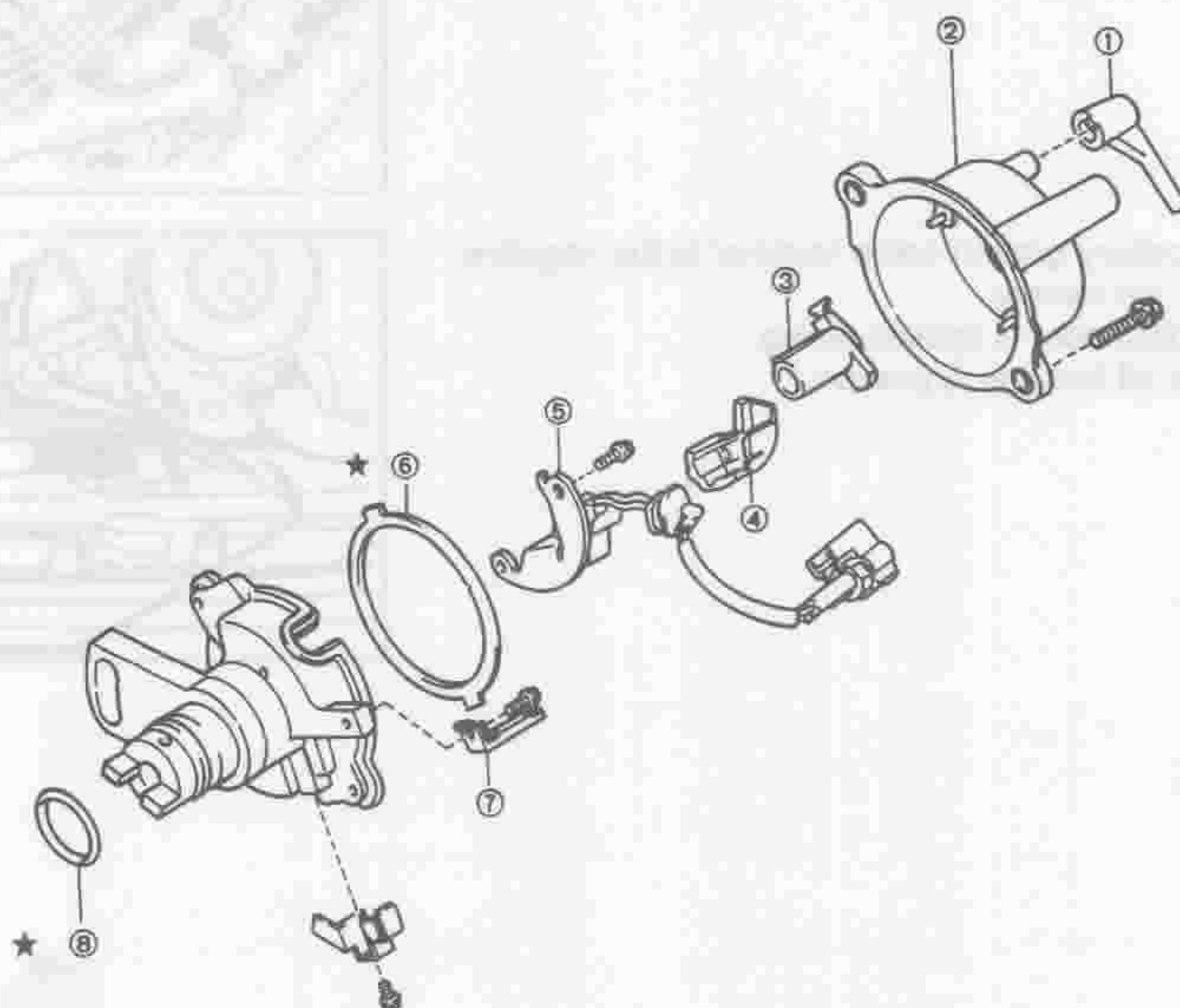
LIG00092-00087

## DISTRIBUTOR

### COMPONENTS

[ED-20, EF-EL Engine]

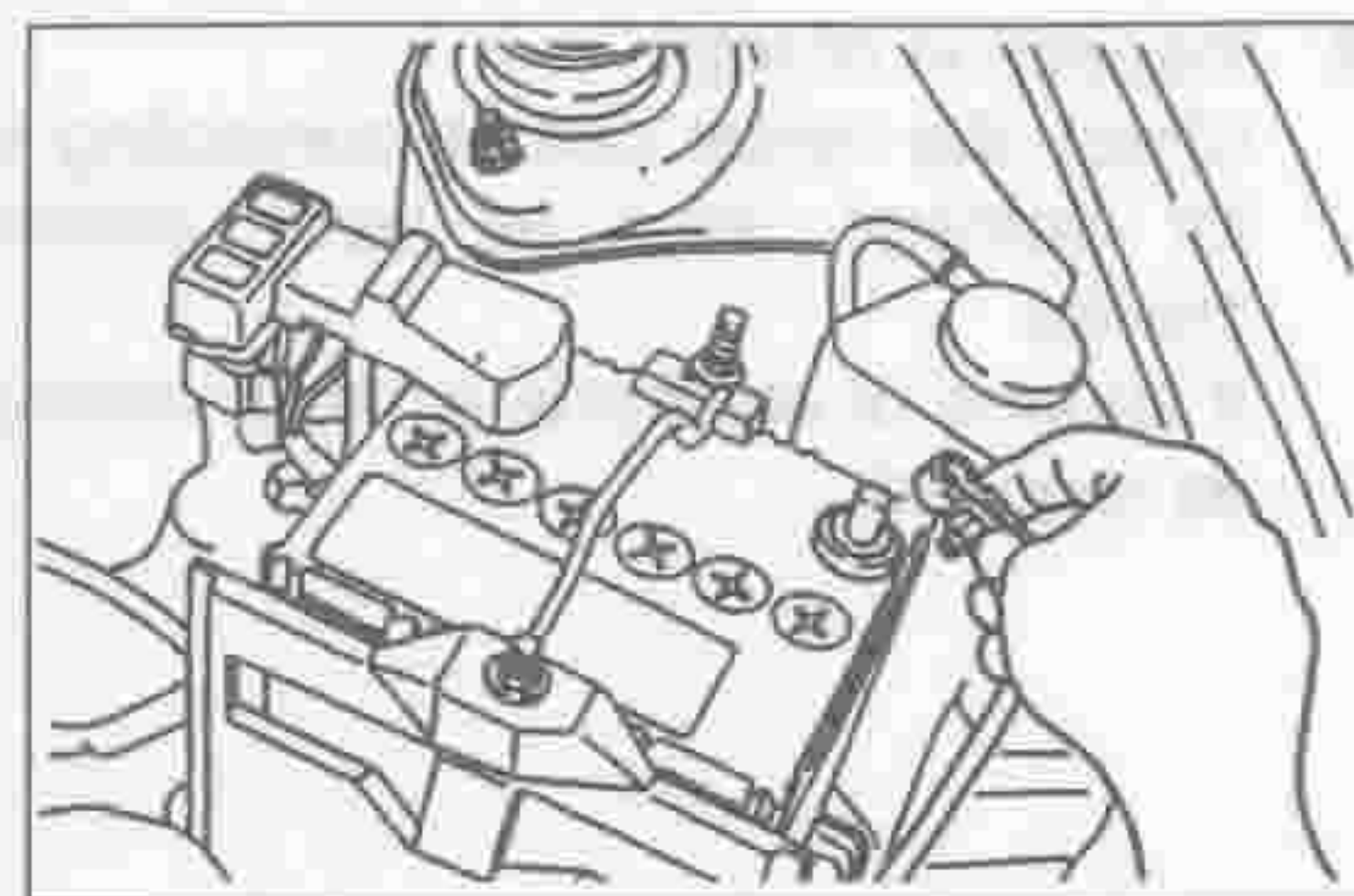
★ : Non-reusable part



- ① Ventilation rubber cap
- ② Distributor cap
- ③ Rotor
- ④ Dust proof cover
- ⑤ Signal generator
- ⑥ Gasket
- ⑦ Cord clamp
- ⑧ O-ring

## REMOVAL OF DISTRIBUTOR

1. Disconnect the battery ground cable from the negative (-) terminal of the battery.
2. Disconnect the resistive cords from the distributor cap.

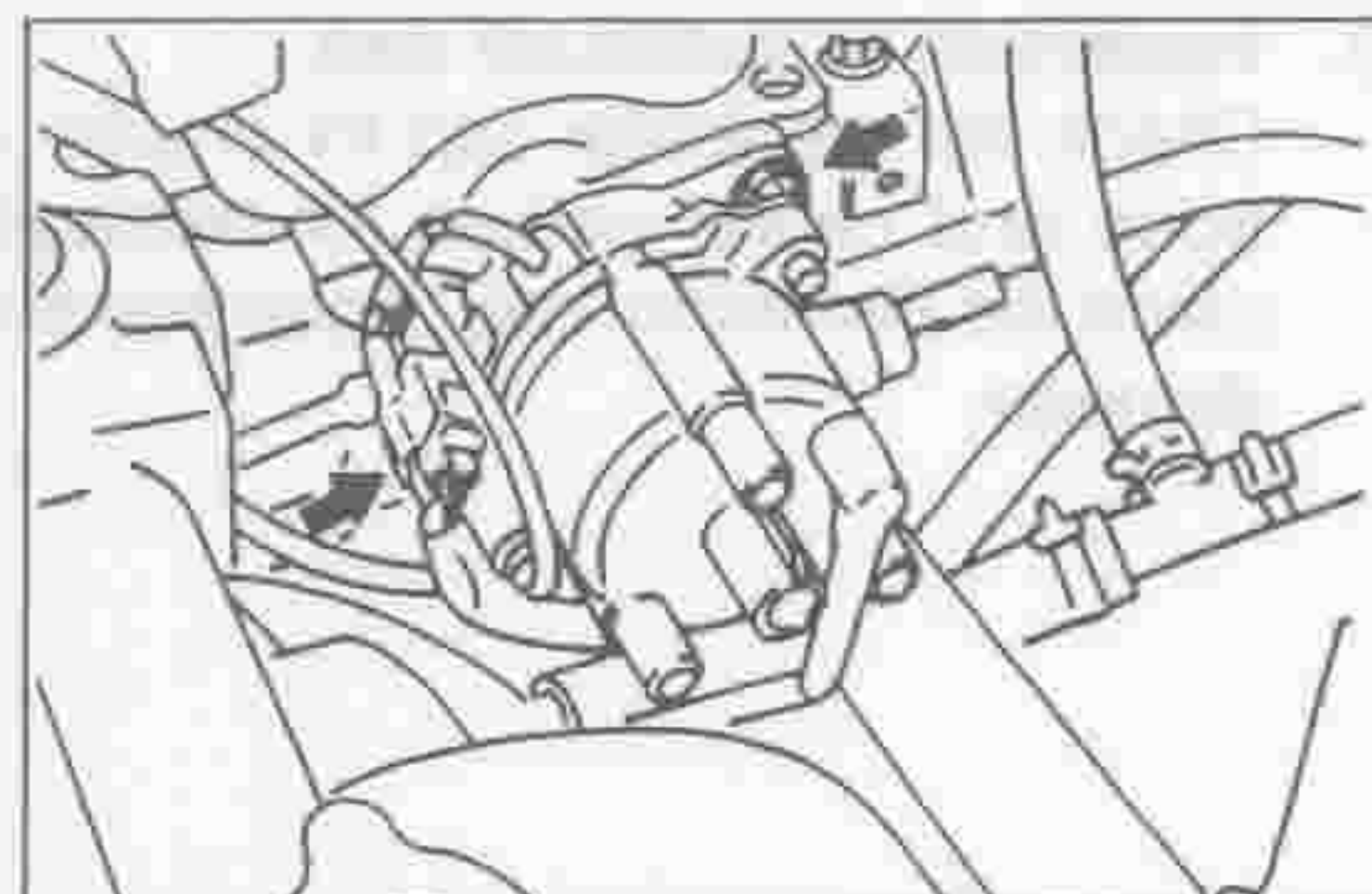


LIG00094-00089

3. Disconnect the connector from the distributor.
4. Remove the distributor retaining bolt.
5. Pull off the distributor from the cylinder head.

### NOTE:

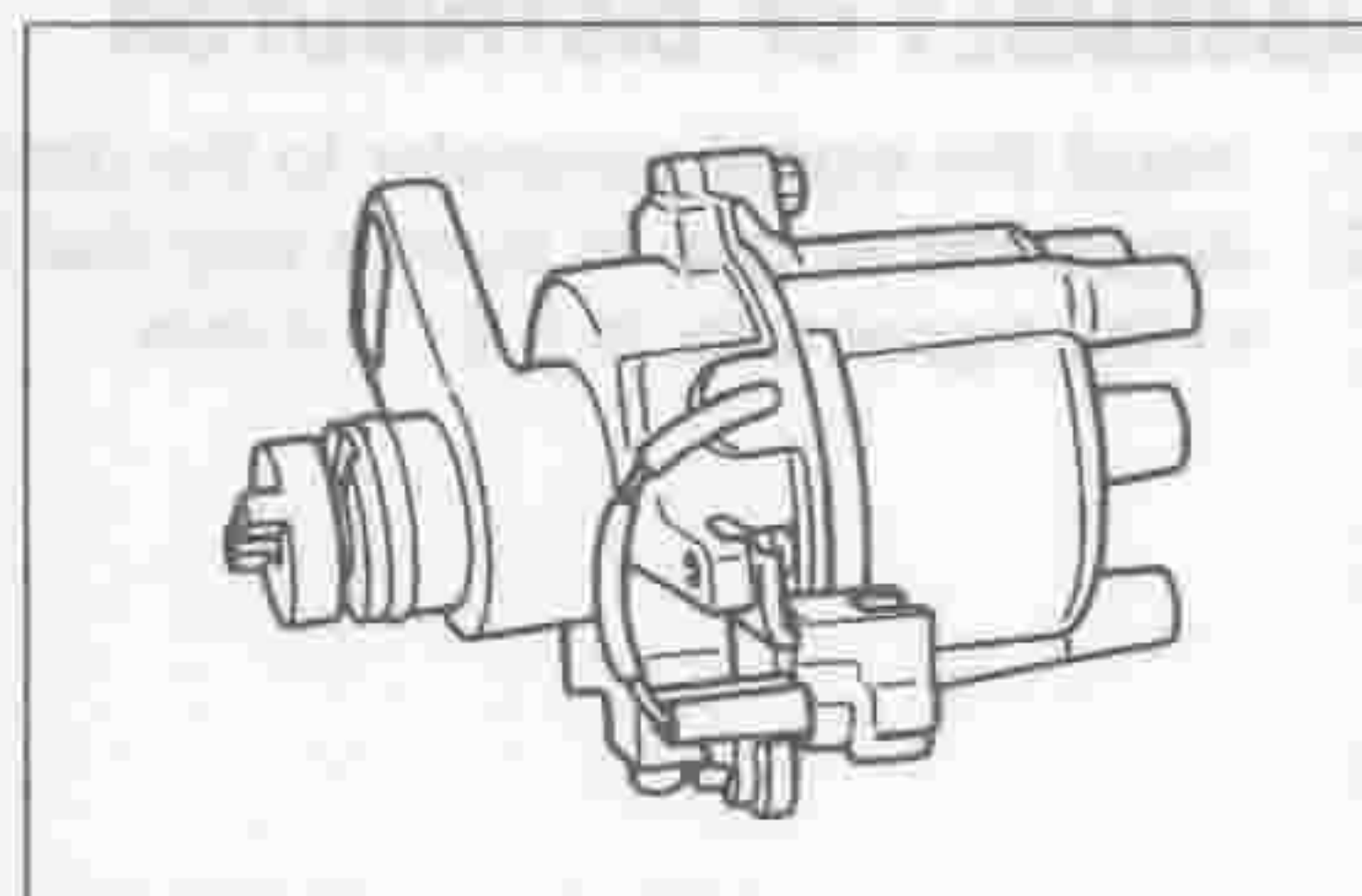
- Since the oil flows out, place a suitable cloth of the like under the connecting section between the distributor and cylinder head.



LIG00095-00090

## DISASSEMBLY OF DISTRIBUTOR

1. Remove the O-ring from the distributor housing.
2. Remove the cap from the distributor housing.
3. Remove the connector from the bracket.
4. Remove the bracket from the distributor housing.
5. Remove the rotor.

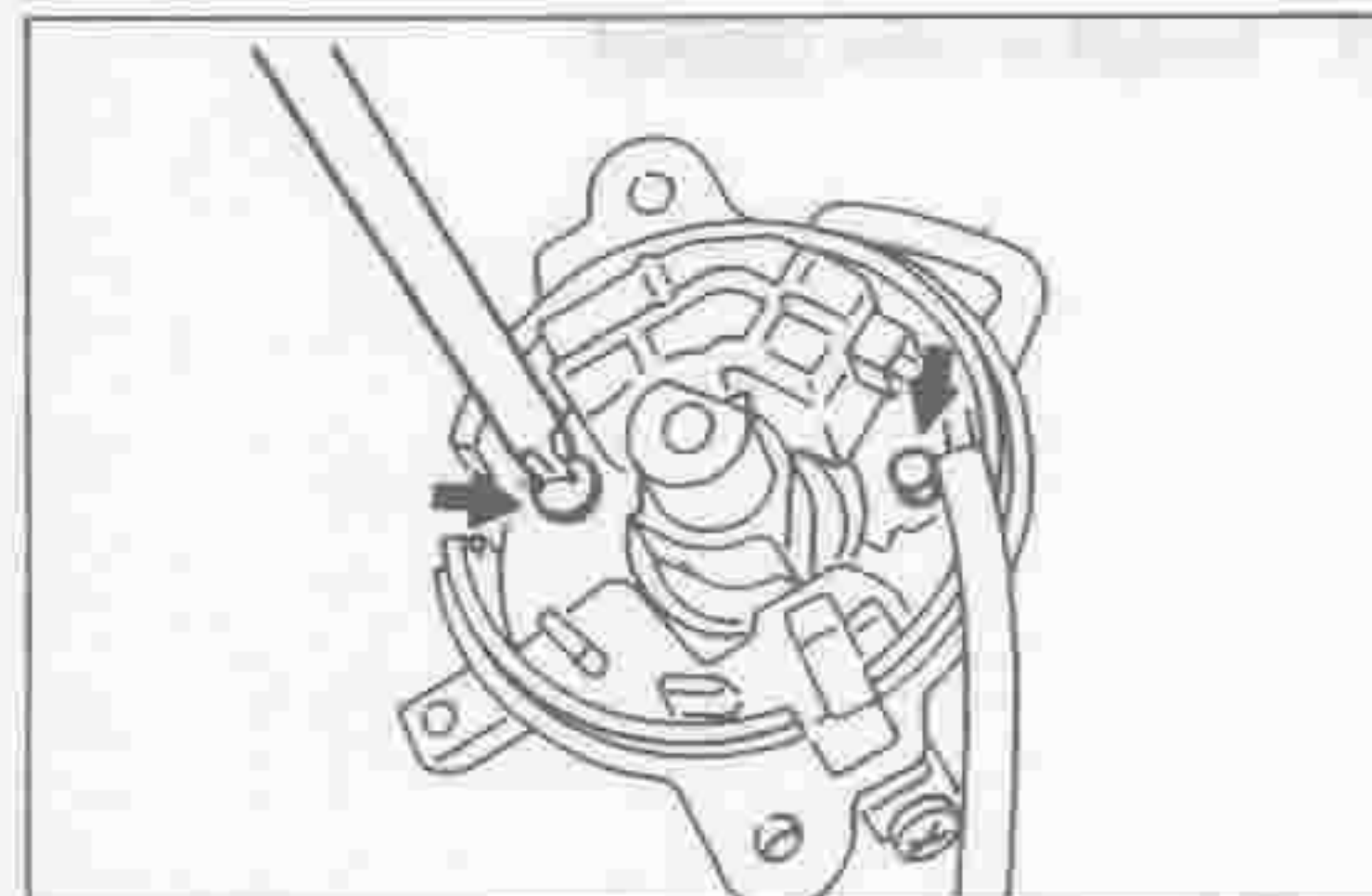


LIG00096-00091

6. Remove the signal generator from the distributor housing by removing the two attaching screws.

### NOTE:

- Be very careful not to damage the wire.

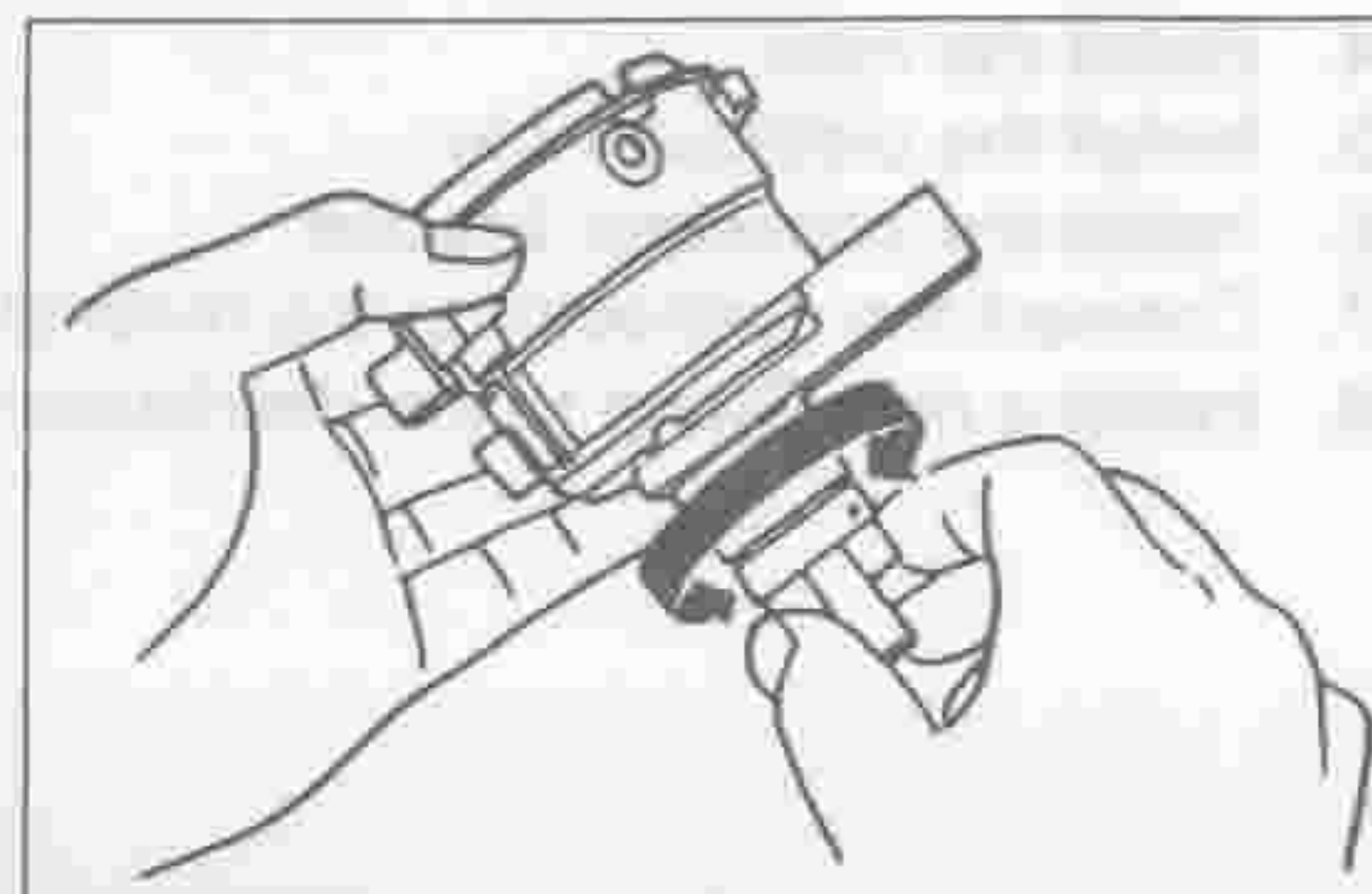


LIG00097-00092

## INSPECTION OF DISTRIBUTOR

### COMPONENTS

1. Inspection of distributor housing
  - (1) Check to see if the shaft rotates smoothly. If it will not rotate smoothly, replace the distributor housing.

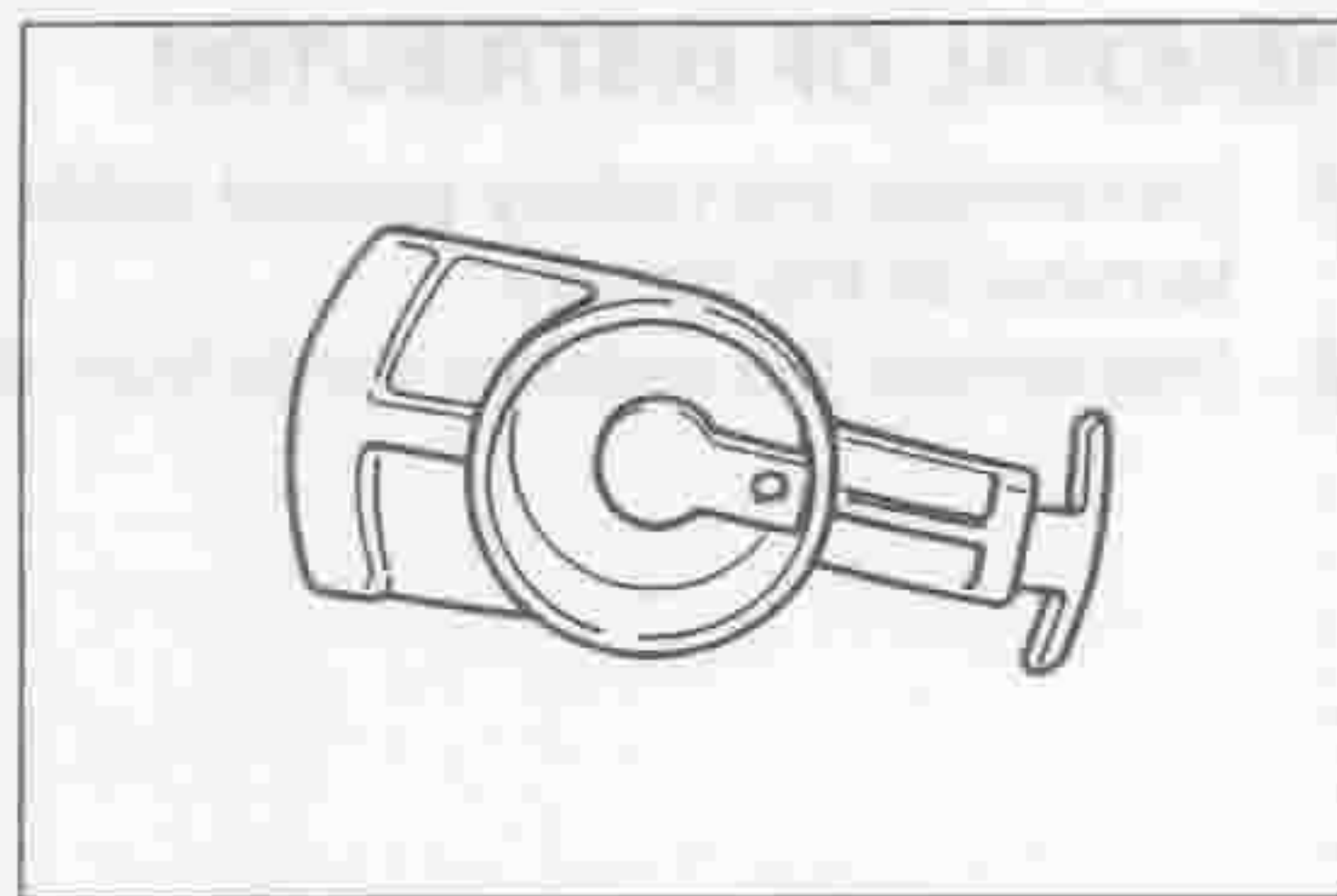


LIG00098-00093

## 2. Inspection of rotor

Check the center carbon contacting surface and electrode for damage, such as wear, electrolytic corrosion and cracks.

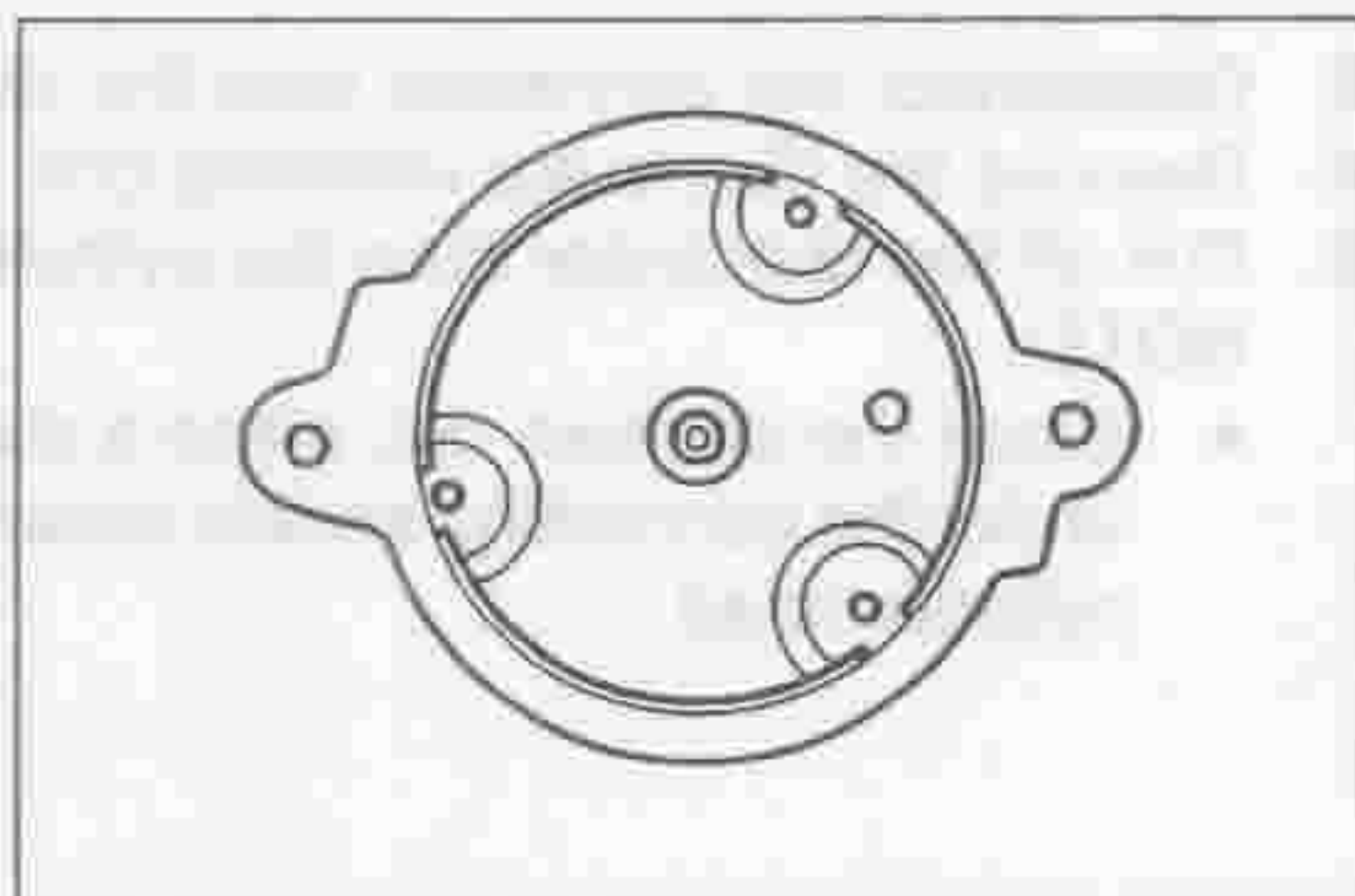
If surface of electrode exhibits damage, replace the rotor, as required.



LIG00099-00094

## 3. Inspection of distributor cap.

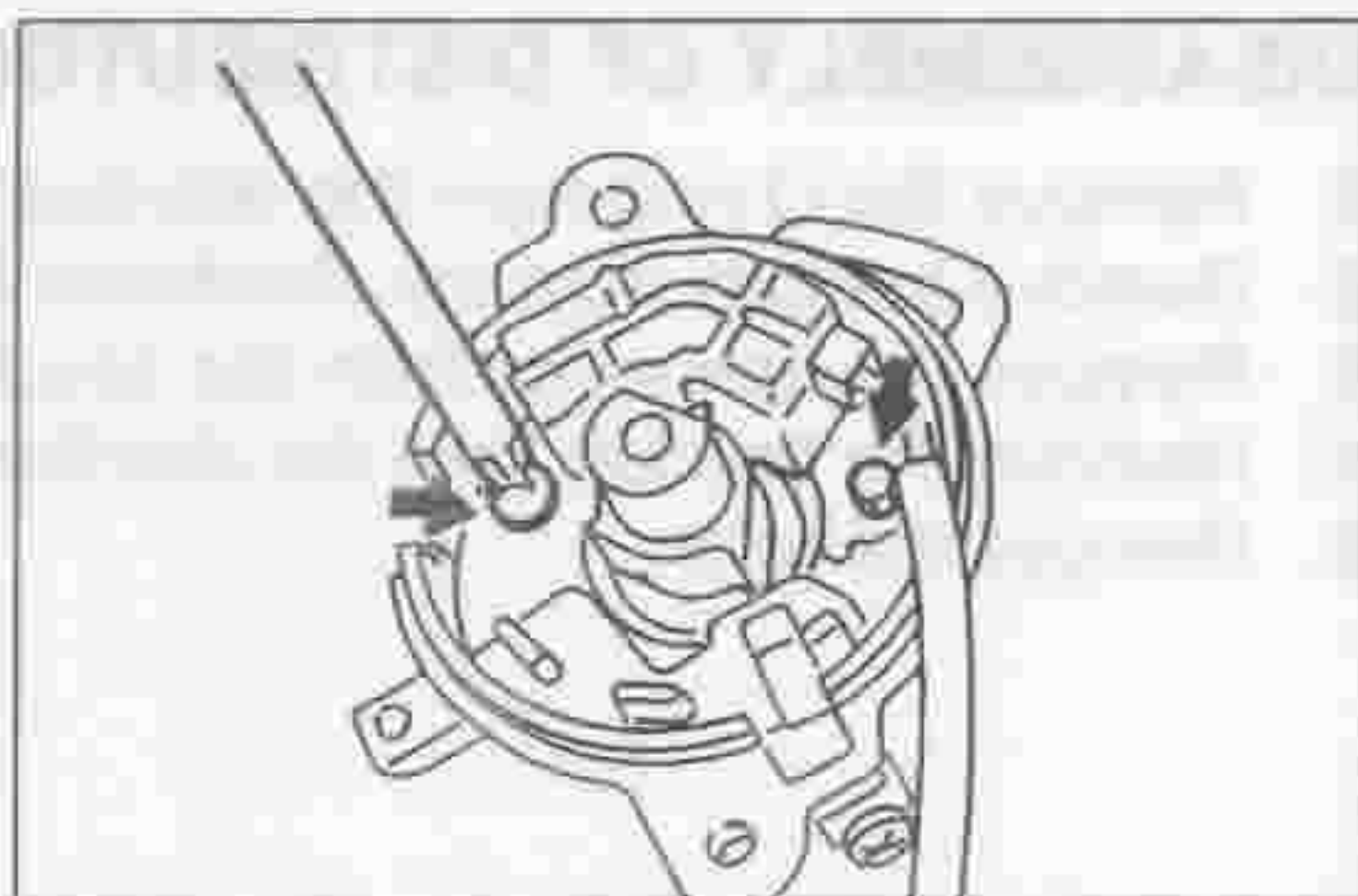
Check the distributor cap for cracks. Also, check the electrode and center carbon for damage, such as wear. Replace the distributor cap, if cap electrode or carbon exhibits damage.



LIG00100-00095

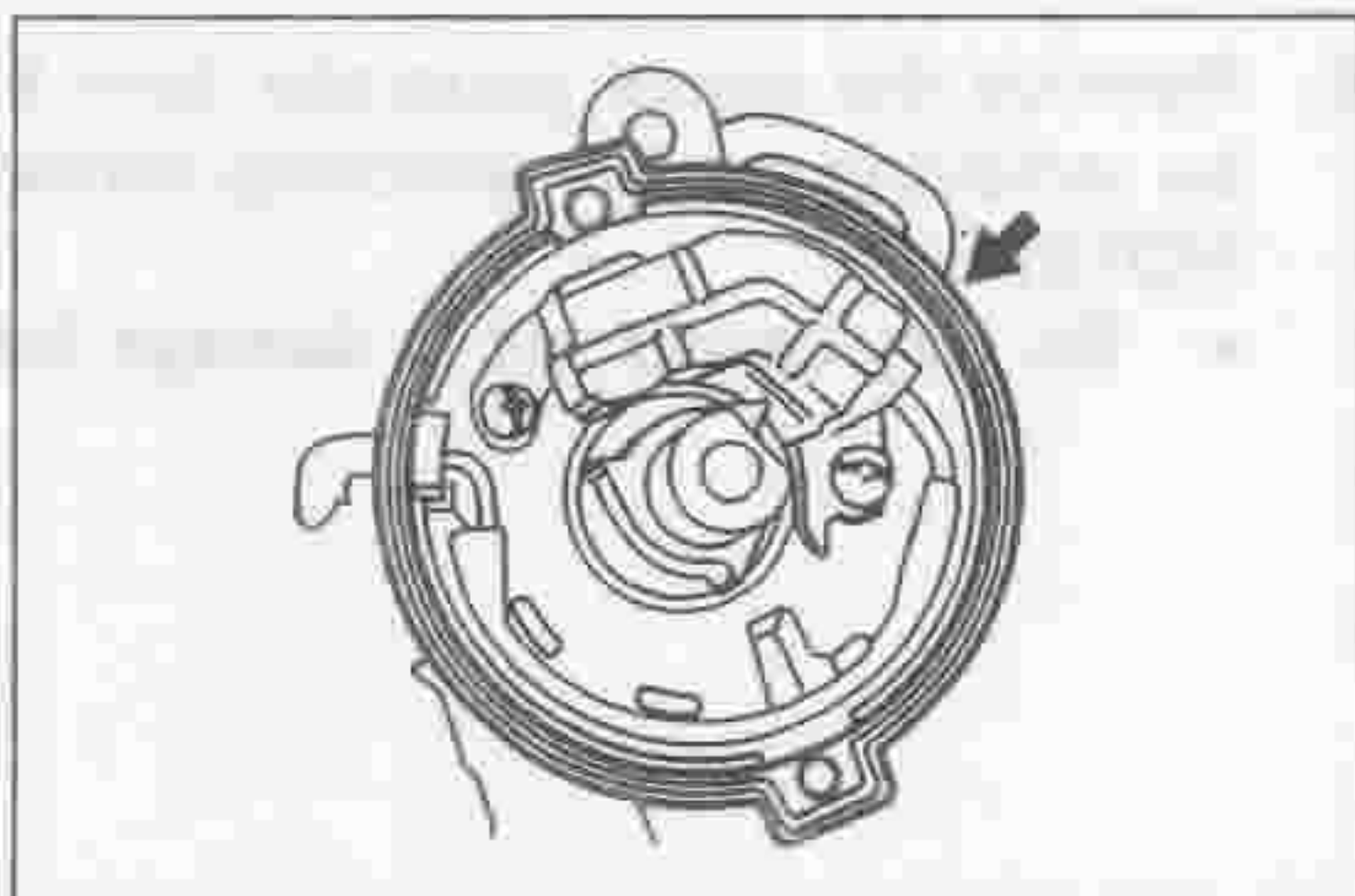
## ASSEMBLY OF DISTRIBUTOR

1. Install the signal generator to the distributor housing.
2. Adjust the air gap in such a way that the air gap in relation to the signal rotor is 0.2 - 0.4 mm.



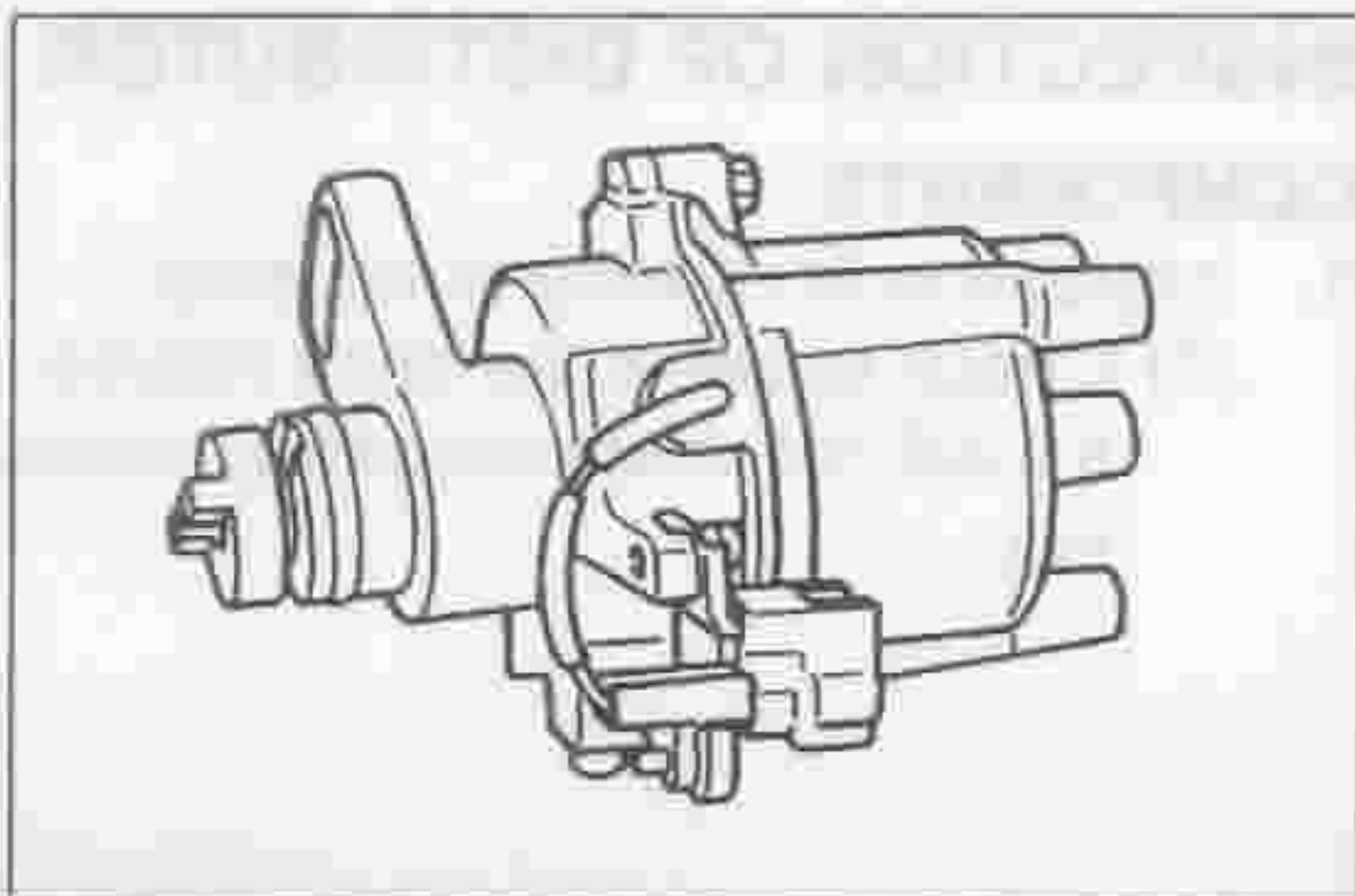
LIG00101-00096

3. Install a new gasket.



LIG00102-00097

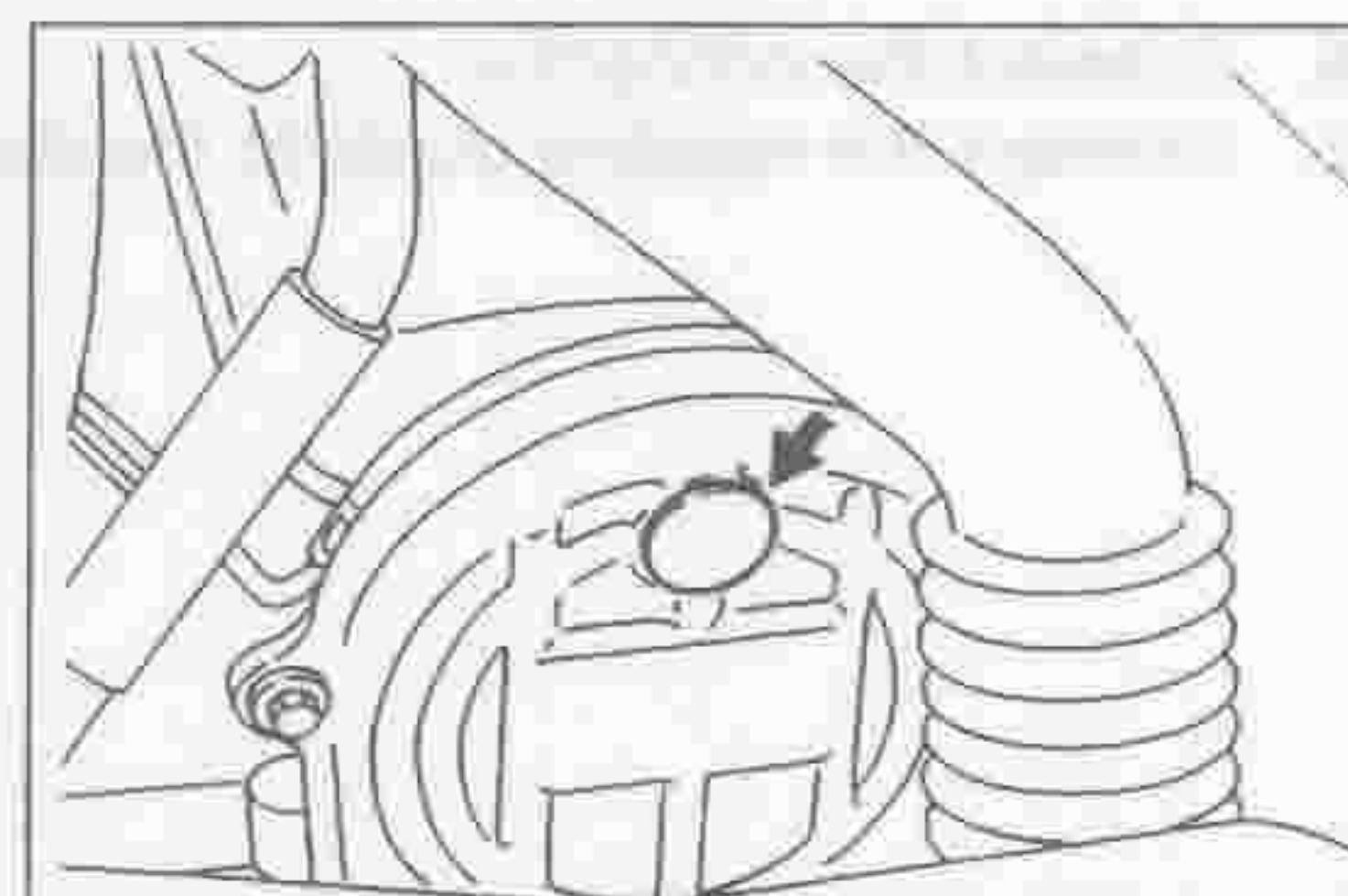
4. Install the rotor.
5. Install the distributor cap.
6. Install the connector bracket.
7. Connect the connector to the bracket.
8. Install a new O-ring to the distributor housing.



LIG00103-00098

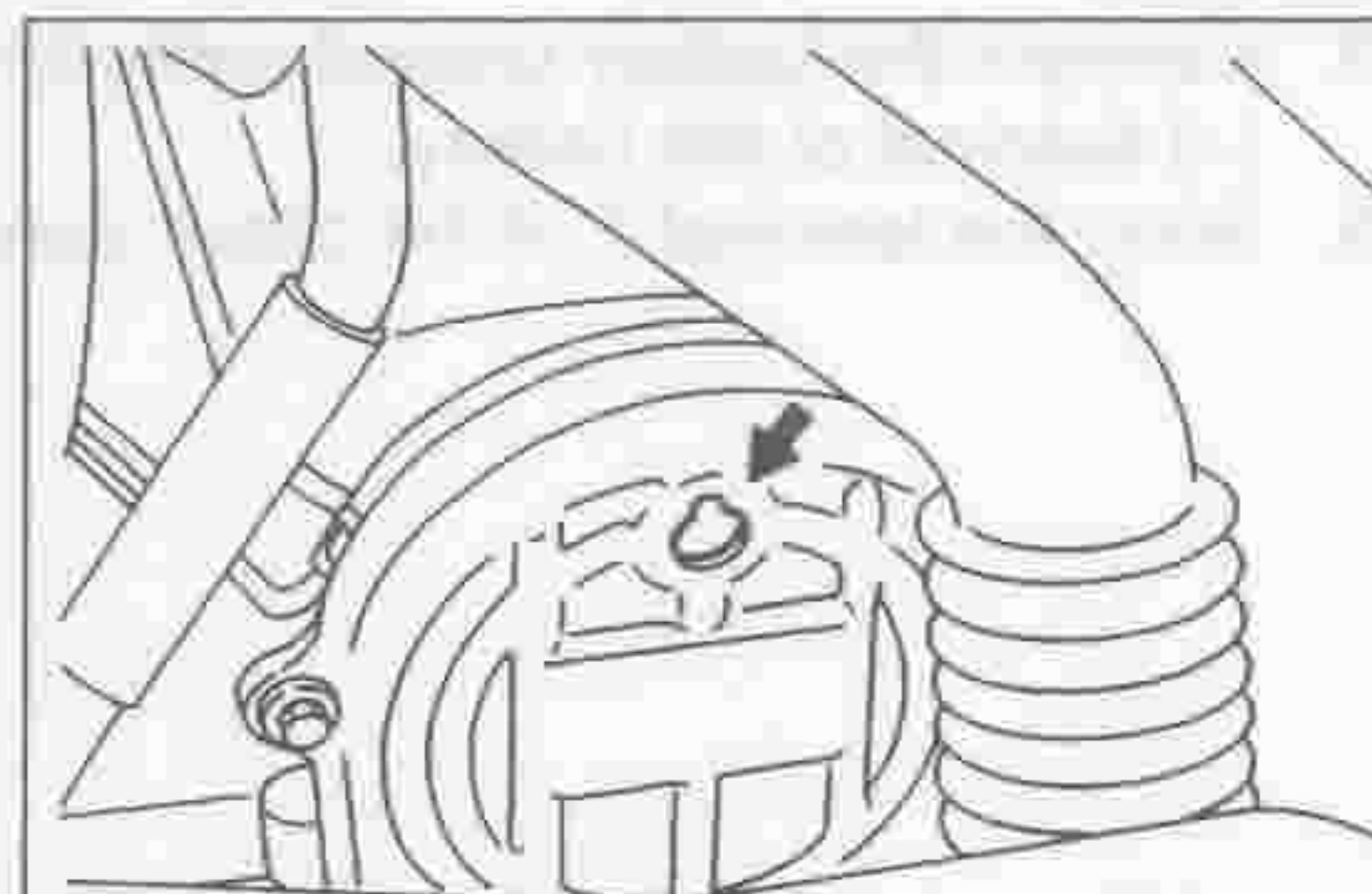
## INSTALLATION OF DISTRIBUTOR

1. Remove the rubber plug from the timing belt cover.



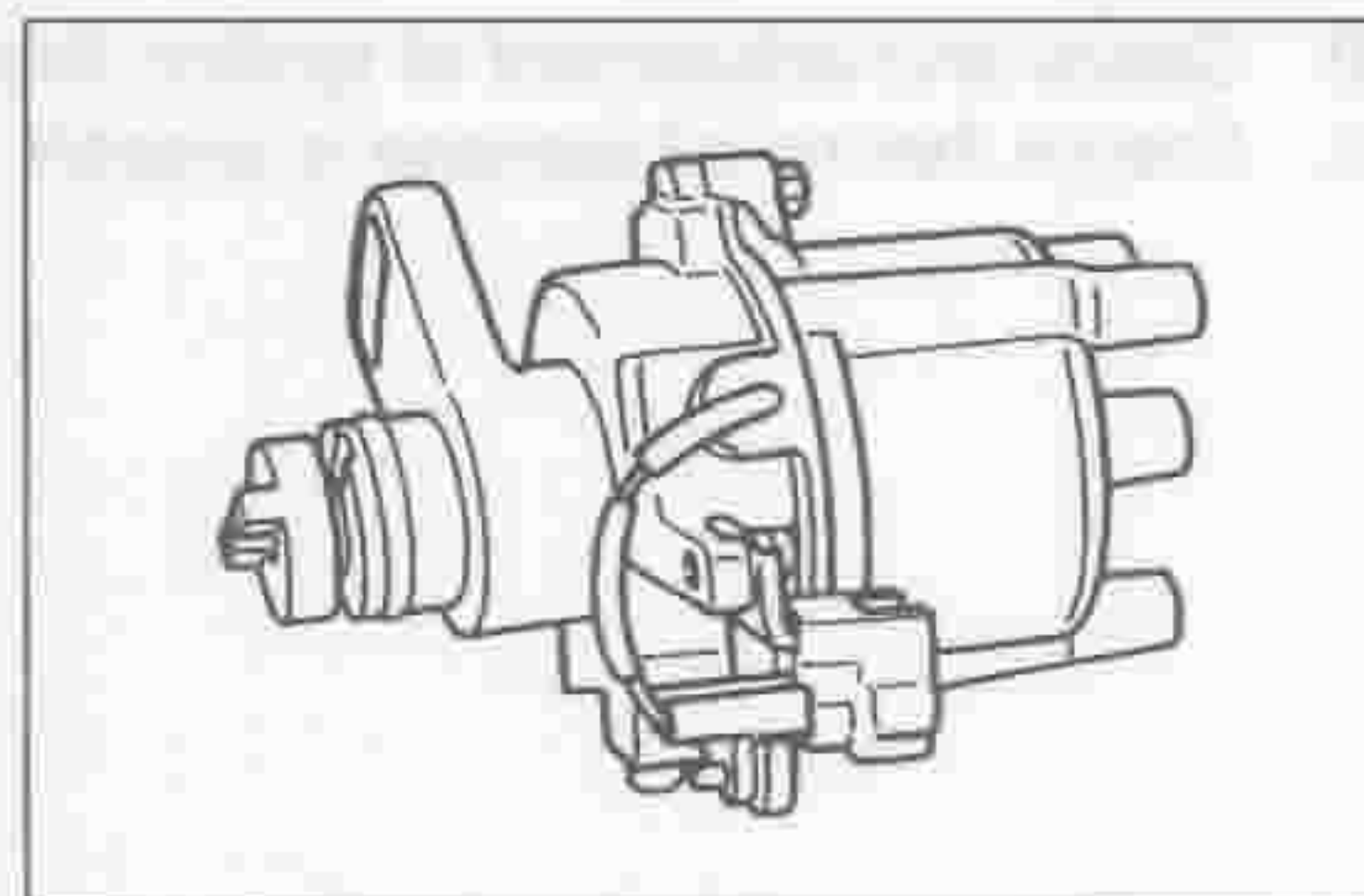
LIG00104-00099

2. Rotate the crankshaft, until the mating mark of the camshaft timing belt pulley aligns with the cut-out section of the timing belt cover hole.



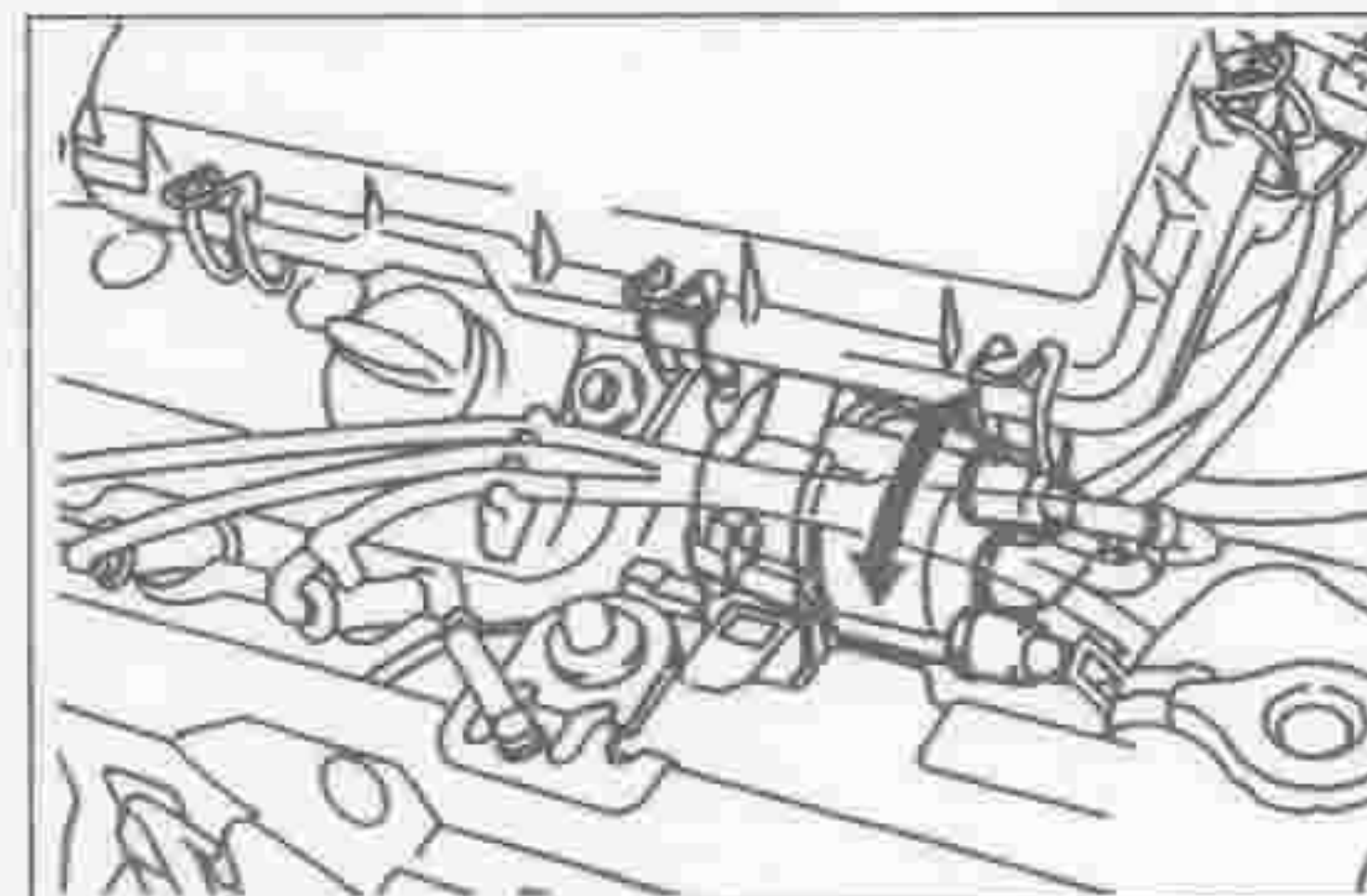
LIG00105-00100

3. Align the cut-out section of the distributor housing with the cut-out section of the coupling.



LIG00106-00101

4. Insert the distributor into the cylinder head. At this time, ensure that the distributor attaching hole at the cylinder head side comes at the center of the elongated hole of the distributor installation section.

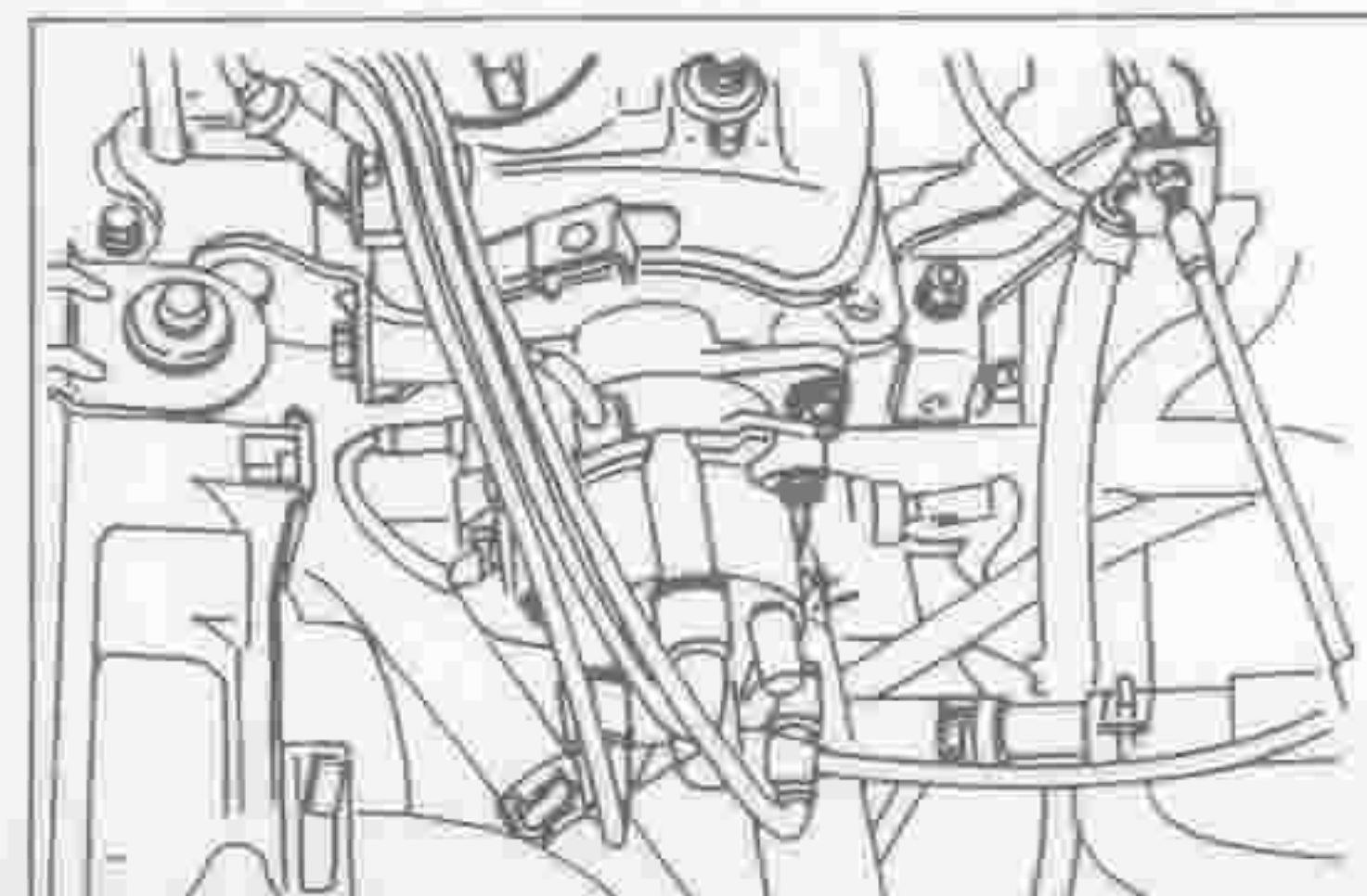


LIG00107-00102

5. Temporarily tighten the distributor retaining bolt.

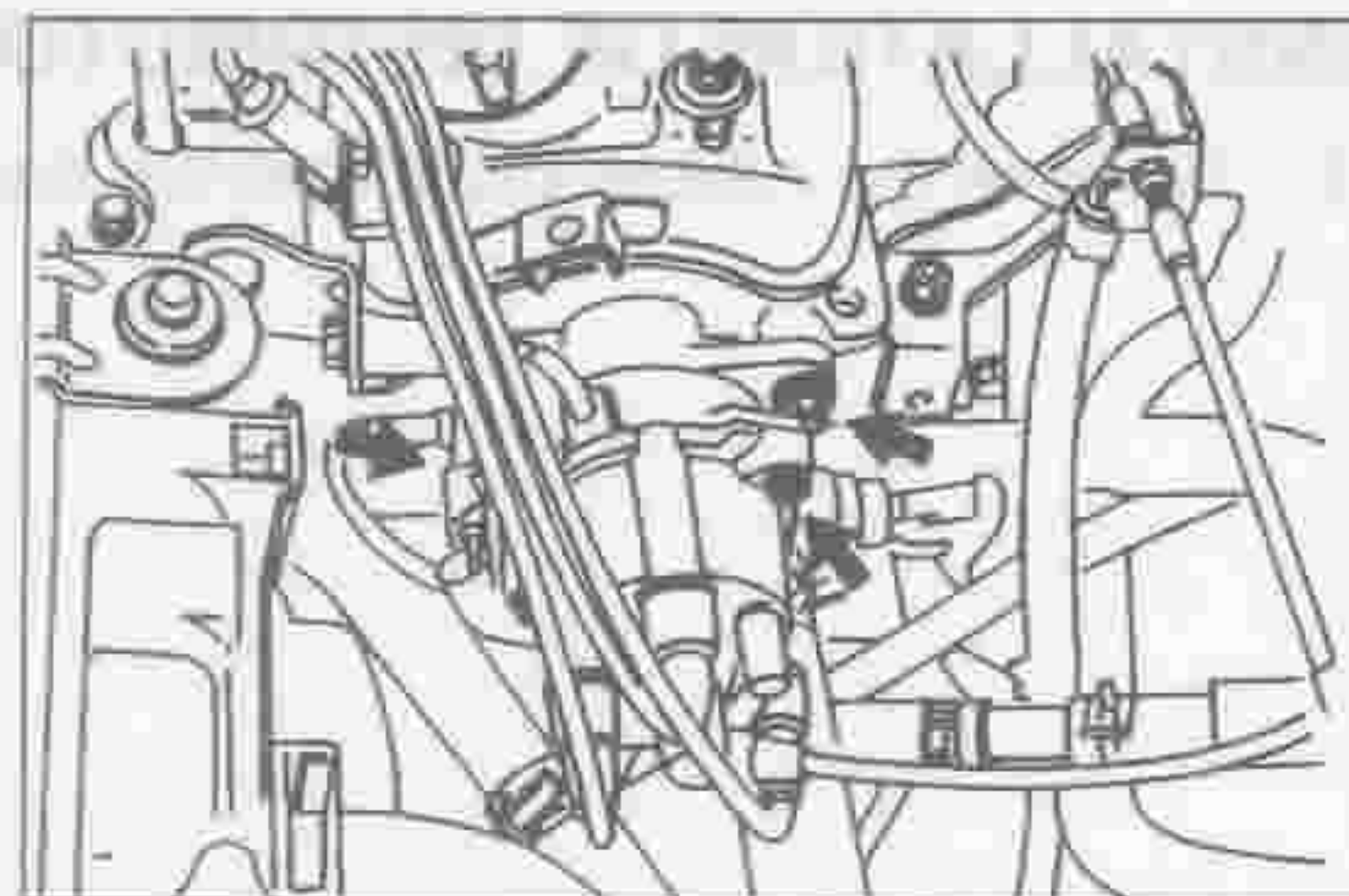
**NOTE:**

- The final tightening should be performed after the check and adjustment of the ignition timing have been completed.



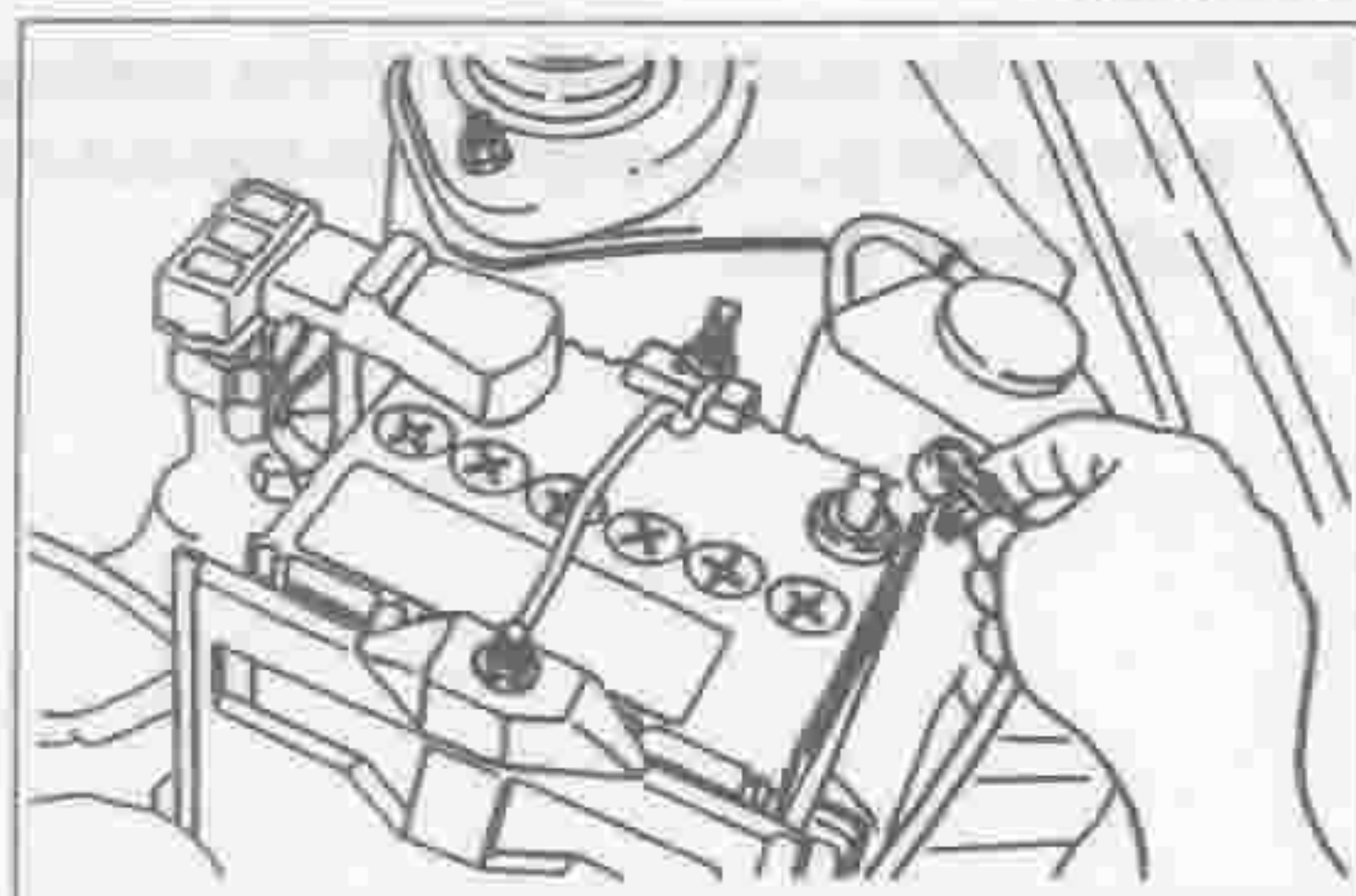
LIG00108-00103

6. Connect the connector.
7. Connect the resistive cords to the distributor cap.



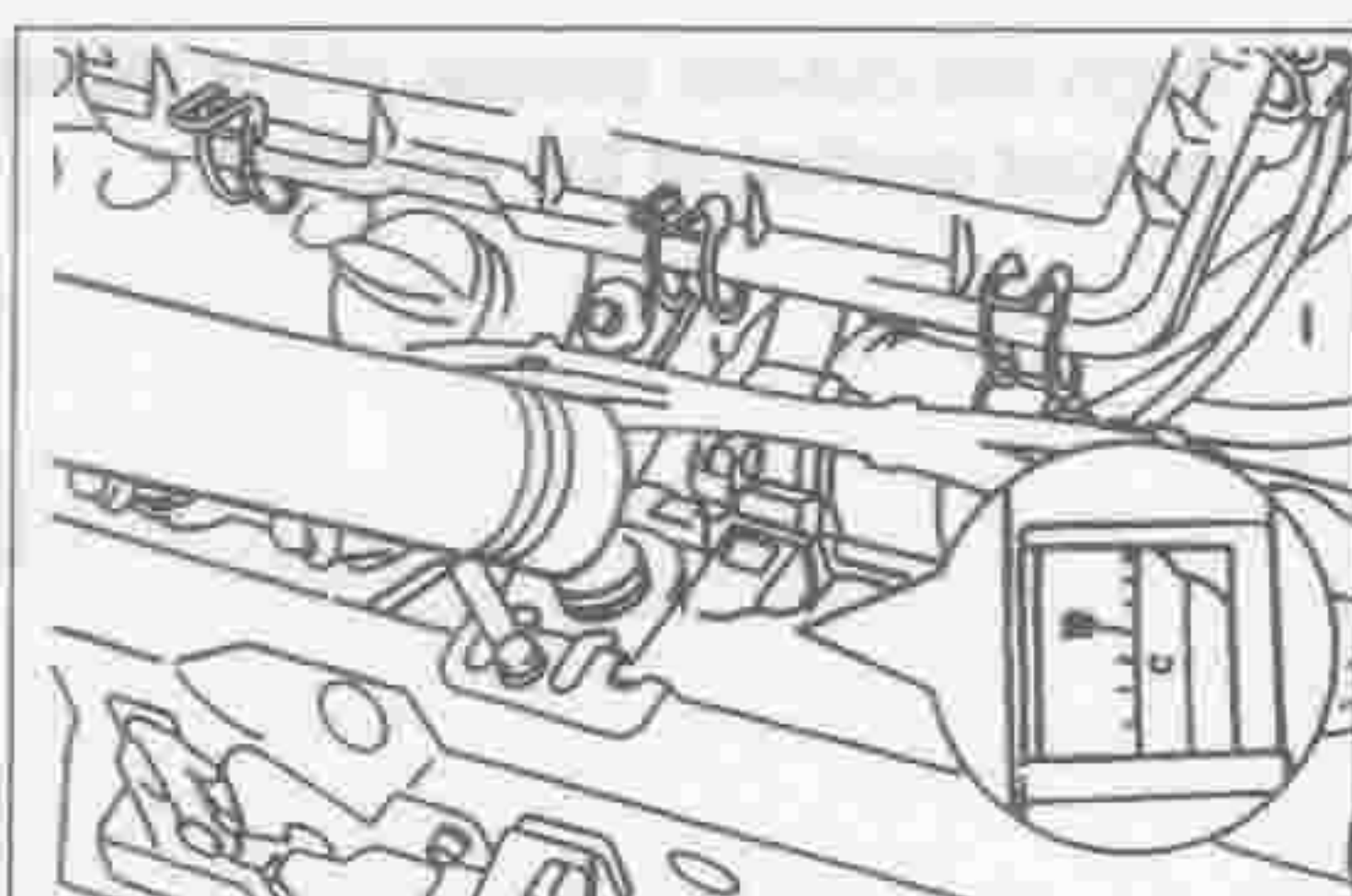
LIG00109-00104

8. Connect the battery ground cable terminal to the negative (-) terminal of the battery.
9. Short the terminal T of the check connector.



LIG00110-00105

10. Check and adjustment of ignition timing.
11. Ensure that no oil leakage is present.



LIG00111-00105

After the engine is started, check the oil level and the oil pressure. If the oil level is low, add oil. If the oil pressure is low, check the oil filter and the oil pump. If the oil pressure is still low, consult a qualified technician.

After the engine is started, check the oil level and the oil pressure. If the oil level is low, add oil. If the oil pressure is low, check the oil filter and the oil pump. If the oil pressure is still low, consult a qualified technician.

## SERVICE SPECIFICATIONS

|                |                            |             |                  |                |
|----------------|----------------------------|-------------|------------------|----------------|
| Ignition coil  | Resistance (at 20°C)       |             |                  |                |
|                | Primary coil               | (Ω)         |                  | 1.35 - 1.65    |
|                | Secondary coil             | (kΩ)        |                  | 22 - 30        |
| Resistive cord | Resistance                 | (kΩ/m)      |                  | 10 - 22        |
| Spark plug     | Recommended spark plug gap |             |                  | (mm)           |
|                | ED-10                      | NIPPONDENSO | W20EXR-U         | 0.7 - 0.8      |
|                |                            | NGK         | BPR-6EY          | 0.8 - 0.9      |
|                | ED-20                      | NIPPONDENSO | W20EXR-U11       | 1.0 - 1.1      |
|                |                            | NGK         | BPR6EY-11        | 1.1 - 1.2      |
|                |                            |             | BPR6ES-11        | 1.1 - 1.2      |
|                | [EF-EL]                    | NIPPONDENSO | QL22TR-S         | 0.9 - 1.0      |
| Distributor    | Ignition timing            | ED-10       | (B.T.D.C. °/rpm) | 5.0 ± 2.0 /900 |
|                |                            | ED-20       | (B.T.D.C. °/rpm) | 5.0 ± 2.0 /900 |
|                |                            | EF-EL       | (B.T.D.C. °/rpm) | 5.0 ± 2.0 /800 |
|                | Air gap                    |             |                  | (mm)           |
|                |                            |             |                  | 0.2 - 0.4      |

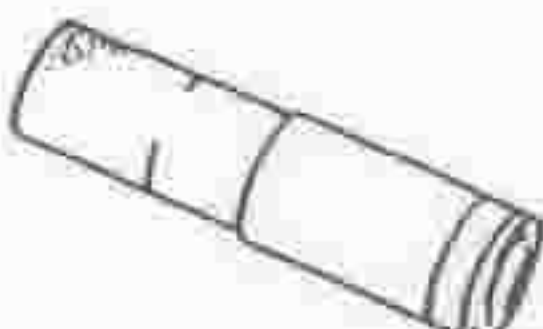
LIG00112-00000

## TIGHTENING TORQUE

| Tightening components       | Tightening torque |             |            | Remarks |
|-----------------------------|-------------------|-------------|------------|---------|
|                             | N·m               | kgf·m       | ft·lb      |         |
| Distributor × Cylinder head | 19.1 ± 3.8        | 1.95 ± 0.39 | 14.1 ± 2.8 |         |
| Spark plug × Cylinder head  | 17.6 ± 2.9        | 1.80 ± 0.30 | 13.0 ± 2.2 |         |

LIG00113-00000

## SSTs

| Shape                                                                               | Part number     | Part name                                    | Remarks |
|-------------------------------------------------------------------------------------|-----------------|----------------------------------------------|---------|
|  | 09258-00030-000 | Plug set                                     |         |
|  | 09991-87604-000 | Tachometer pulse pickup wire                 |         |
|  | 09991-87203-00  | Engine control system inspection sub harness |         |
|  | 09268-87703-000 | Plug wrench                                  |         |

LIG00114-000107