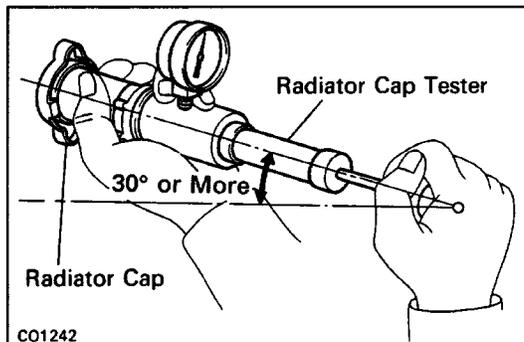


RADIATOR

CLEANING OF RADIATOR

Using water or a steam cleaner, remove any mud and dirt from the radiator core.

CAUTION: If using a high pressure type cleaner, be careful not to deform the fins of the radiator core. If the cleaner nozzle pressure is 2,942 – 3,432 kPa (30 – 35 kgf/cm², 427 – 498 psi), keep a distance of at least 40 – 50 cm (15.75 – 19.69 in.) between the radiator core and cleaner nozzle.



INSPECTION OF RADIATOR

1. INSPECT RADIATOR CAP

NOTICE: When performing steps (a) and (b) below, keep the radiator pump tester at an angle of over 30° above the horizontal.

- (a) Using a radiator cap tester, slowly pump the tester and check that air is coming from the relief valve.

Pump speed: 1 push/3 seconds or more

NOTICE: Push the pump at a constant speed.

If air is not coming from the relief valve, replace the radiator cap.

- (b) Pump the tester several times and measure the relief valve opening pressure.

Pump speed:

1st time 1 push/1 second or less

2nd time or more Any speed

Standard opening pressure:

74 – 103 kPa

(0.75 – 1.05 kgf/cm², 10.7 – 14.9 psi)

Minimum opening pressure:

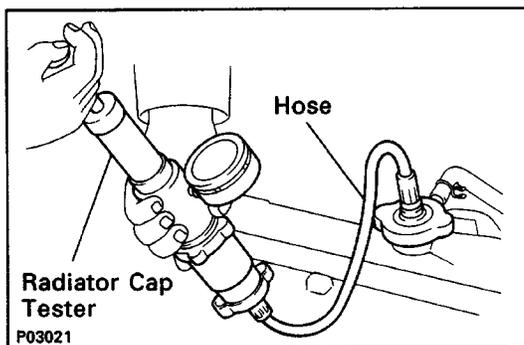
59 kPa (0.6 kgf/cm², 8.5 psi)

If the opening pressure is less than minimum, replace the radiator cap.

2. INSPECT COOLING SYSTEM FOR LEAKS

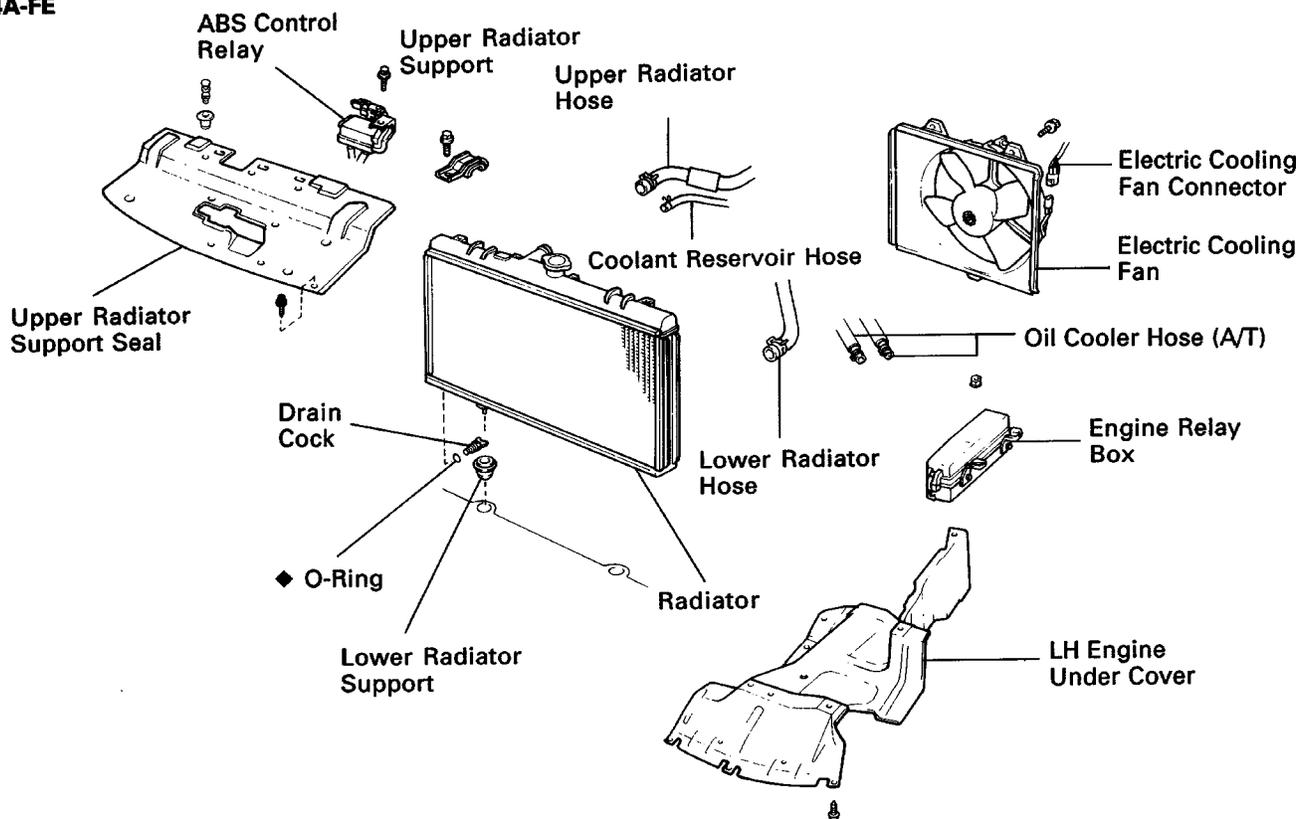
- (a) Fill the radiator with coolant and attach a radiator cap tester.
- (b) Warm up the engine.
- (c) Pump it to 118 kPa (1.2 kgf/cm², 17.1 psi), and check that the pressure does not drop.

If the pressure drops, check the hoses, radiator or water pump for leaks. If no external leaks are found, check the heater core, cylinder block and head.



REMOVAL OF RADIATOR

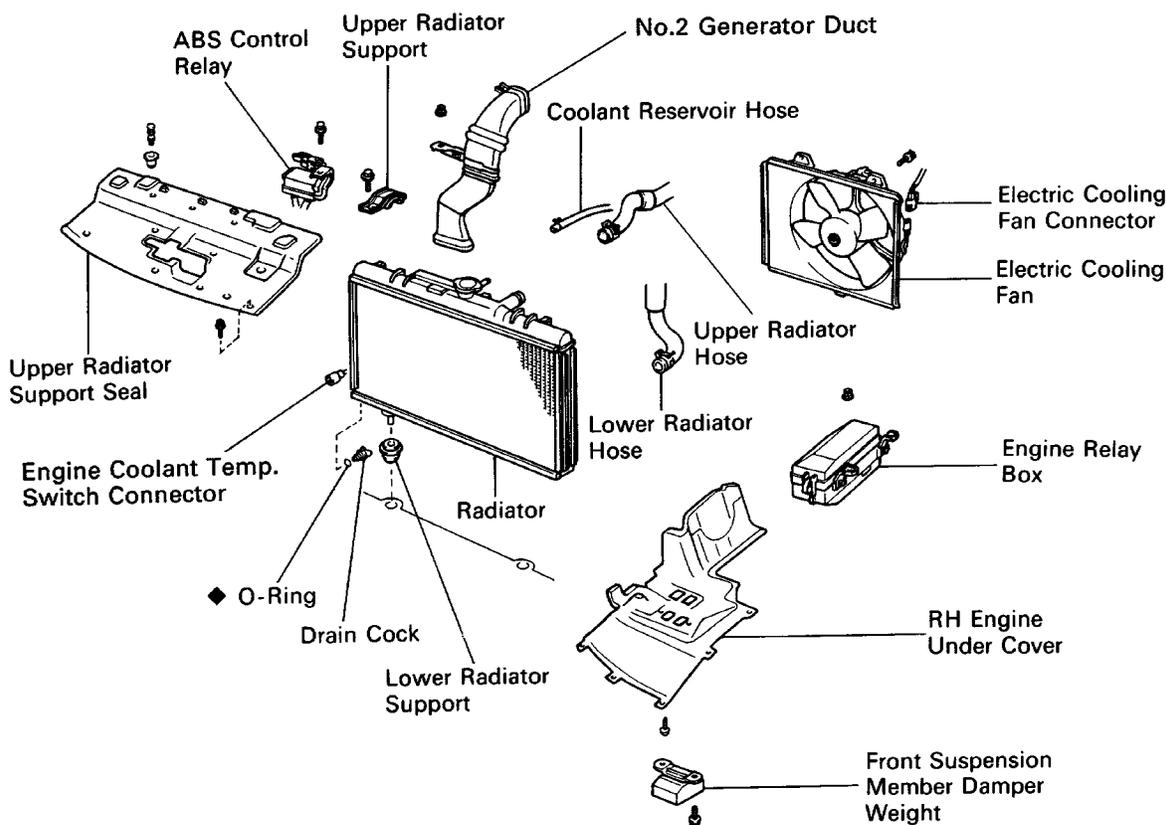
4A-FE



P03027

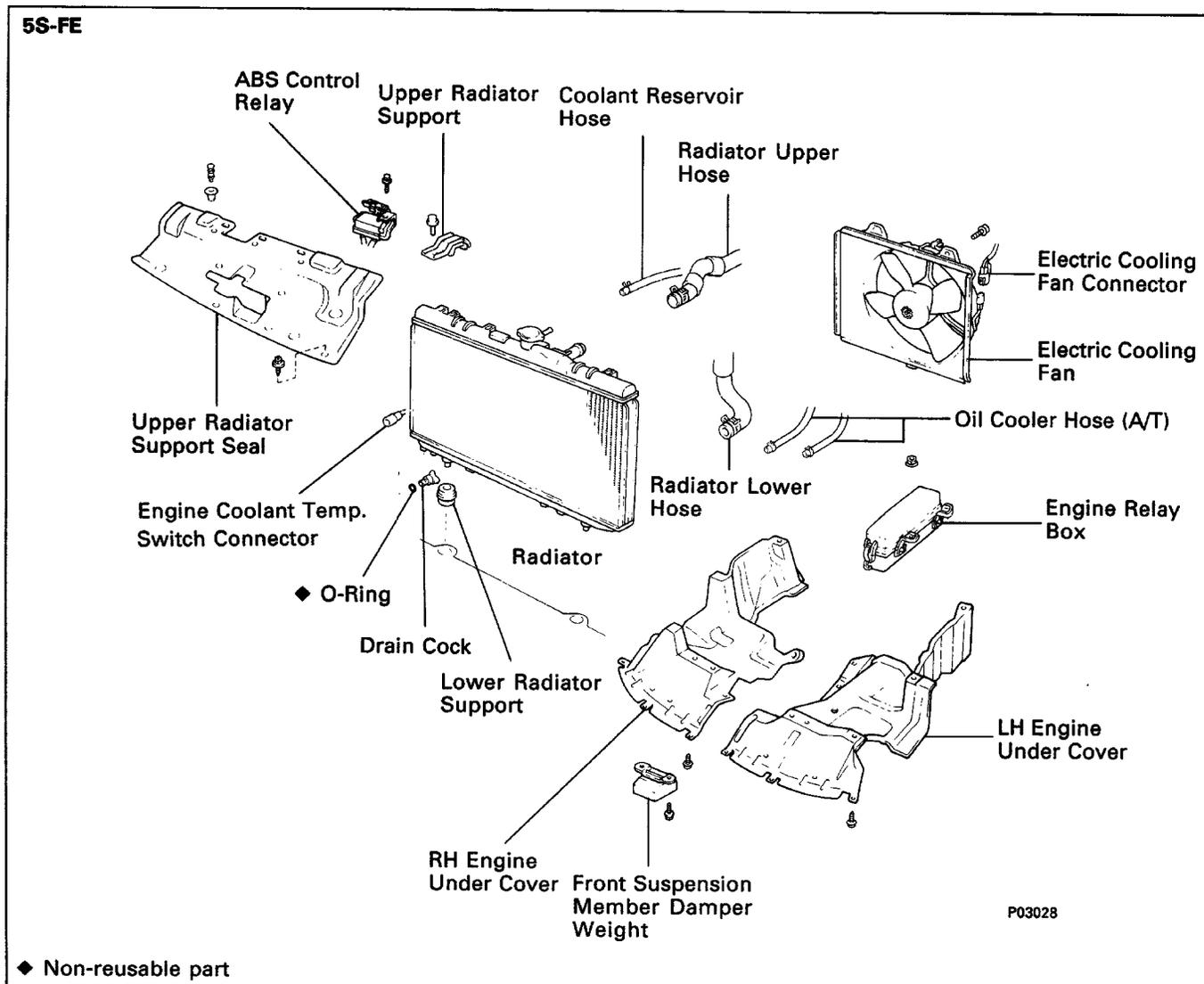
◆ Non-reusable part

3S-GTE



C01244

◆ Non-reusable part



1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY

CAUTION: Work must be started after approx. 20 seconds or longer from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

2. (4A-FE)

REMOVE LH ENGINE UNDER COVER

3. (3S-GTE AND 5S-FE (M/T))

REMOVE RH ENGINE UNDER COVER

4. (5S-FE (A/T))

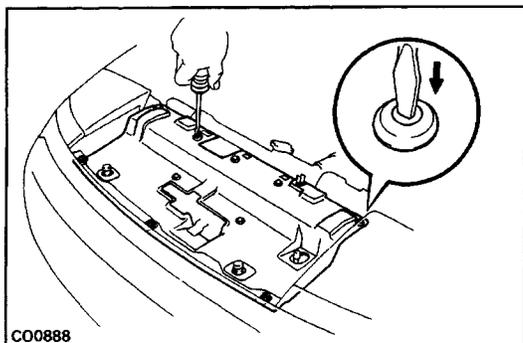
REMOVE RH AND LH ENGINE UNDER COVERS

5. DRAIN ENGINE COOLANT (See page [CO-6](#))

6. (3S-GTE AND 5S-FE)

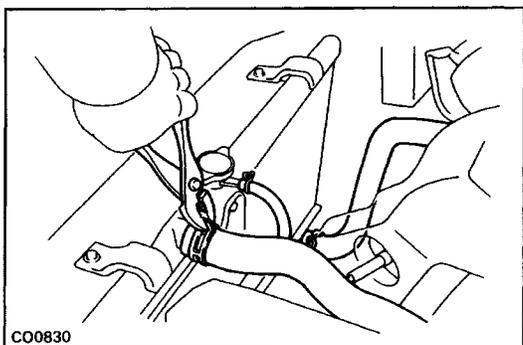
DISCONNECT ENGINE COOLANT TEMPERATURE SWITCH CONNECTOR

7. (w/ ABS)
DISCONNECT ABS CONTROL RELAY FROM RADIATOR
8. (3S-GTE)
REMOVE NO.2 GENERATOR DUCT
9. DISCONNECT ENGINE RELAY BOX FROM BATTERY



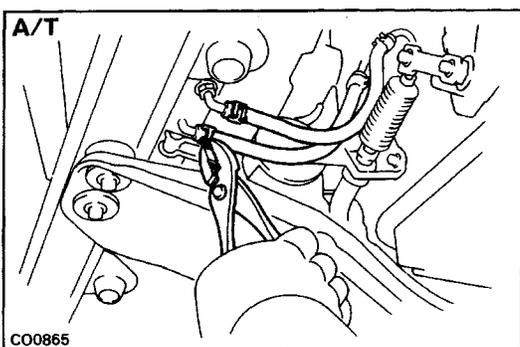
CO0888

10. REMOVE UPPER RADIATOR SUPPORT SEAL
Remove the seven clips, three screws and support seal.
11. DISCONNECT ELECTRIC COOLING FAN CONNECTOR



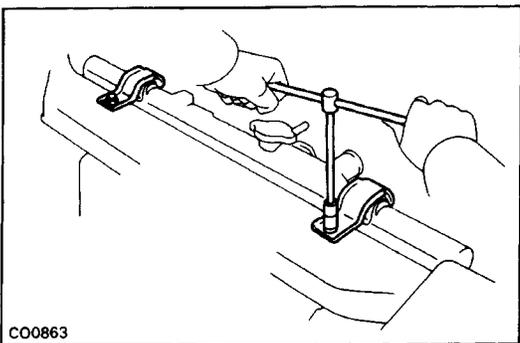
CO0830

12. DISCONNECT COOLANT RESERVOIR HOSE
13. DISCONNECT RADIATOR HOSES



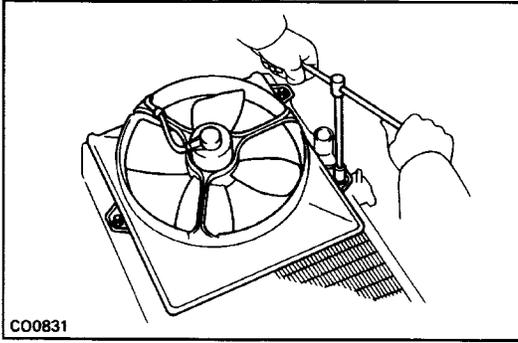
CO0865

14. (A/T)
DISCONNECT OIL COOLER HOSES



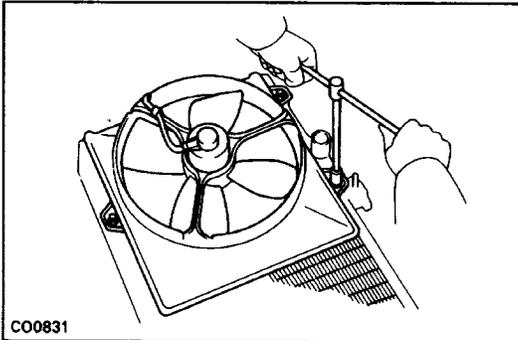
CO0863

15. REMOVE RADIATOR AND ELECTRIC COOLING FAN
 - (a) Remove the two bolts and two upper supports.
 - (b) Lift out the radiator.
 - (c) Remove the two lower radiator supports.



16. REMOVE ELECTRIC COOLING FAN FROM RADIATOR

Remove the three bolts and cooling fan.

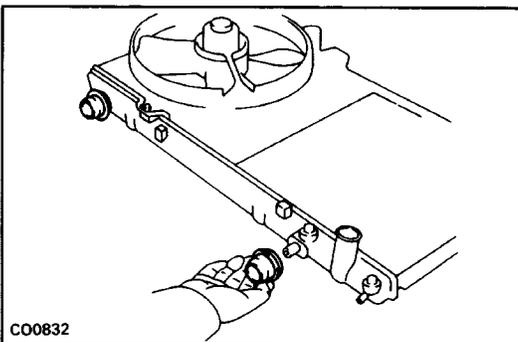


INSTALLATION OF RADIATOR

(See page [CO-21](#) or 22)

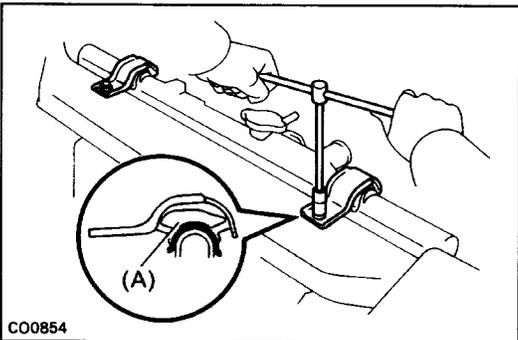
1. INSTALL ELECTRIC COOLING FAN TO RADIATOR

Install the cooling fan with the three bolts.



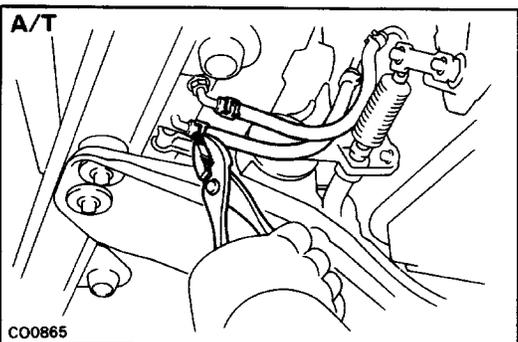
2. INSTALL RADIATOR

(a) Place the two lower radiator supports in position on the body.



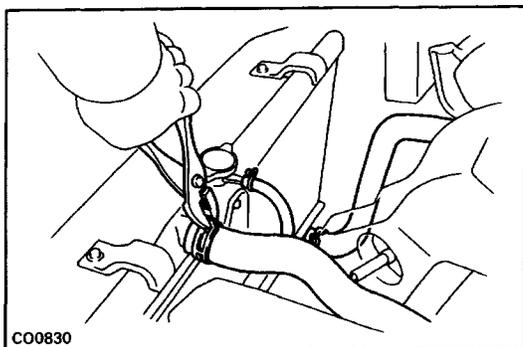
(b) Place the radiator in position, and install the two upper supports with the two bolts.

HINT: After installation, check that the rubber cushion (A) of the supports are not depressed.

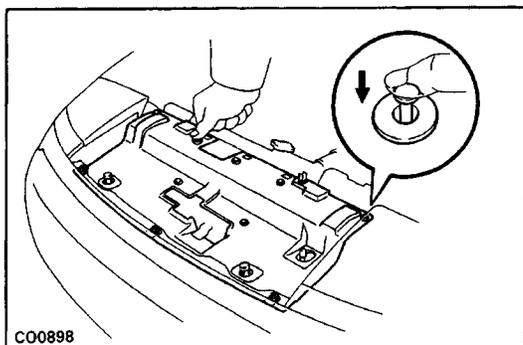


3. (A/T)

CONNECT OIL COOLER HOSES



4. CONNECT RADIATOR HOSES
5. CONNECT COOLANT RESERVOIR HOSE
6. CONNECT ELECTRIC COOLING FAN CONNECTOR



7. INSTALL UPPER RADIATOR SUPPORT SEAL
Install the support seal with the seven clips and three screws.

8. INSTALL ENGINE RELAY BOX
9. (3S-GTE)
INSTALL NO.2 GENERATOR AIR DUCT
10. (w/ ABS)
INSTALL ABS CONTROL RELAY
11. (3S-GTE AND 5S-FE)
CONNECT ENGINE COOLANT TEMPERATURE SWITCH CONNECTOR
12. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY
13. FILL WITH ENGINE COOLANT (See page [CO-6](#))
14. START ENGINE AND CHECK FOR LEAKS
15. (A/T)
CHECK AUTOMATIC TRANSMISSION (A/T) FLUID LEVEL (See page [MA-13](#))
NOTICE: Do not overfill.
16. (4A-FE)
INSTALL LH ENGINE UNDER COVER
17. (3S-GTE AND 5S-FE (M/T))
INSTALL RH ENGINE UNDER COVER
18. (5S-FE (A/T))
INSTALL RH AND LH ENGINE UNDER COVERS