

RADIATOR

RADIATOR CLEANING

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

NOTICE: 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 cm (15.75 in.) between the radiator core and cleaner nozzle.

RADIATOR INSPECTION

1. REMOVE RADIATOR TANK CAP

CAUTION: To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot, as fluid and steam can be blown out under pressure.

2. INSPECT RADIATOR CAP

Using a radiator cap tester, pump the tester and measure the relief valve opening pressure.

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)

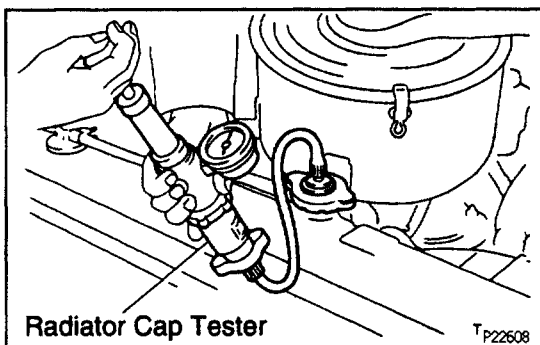
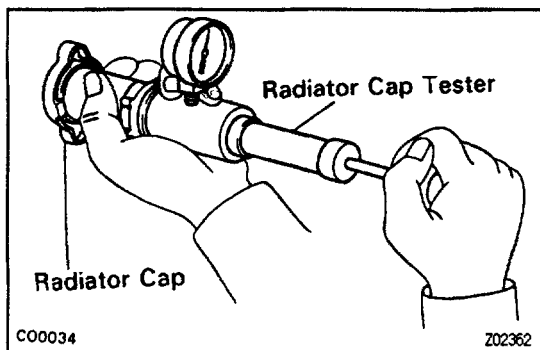
If the opening pressure is less than minimum, replace the radiator cap.

3. INSPECT COOLING SYSTEM FOR LEAKS

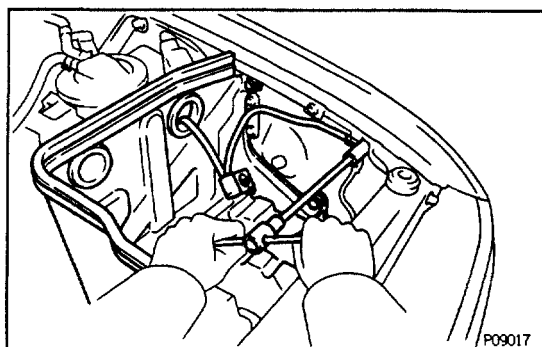
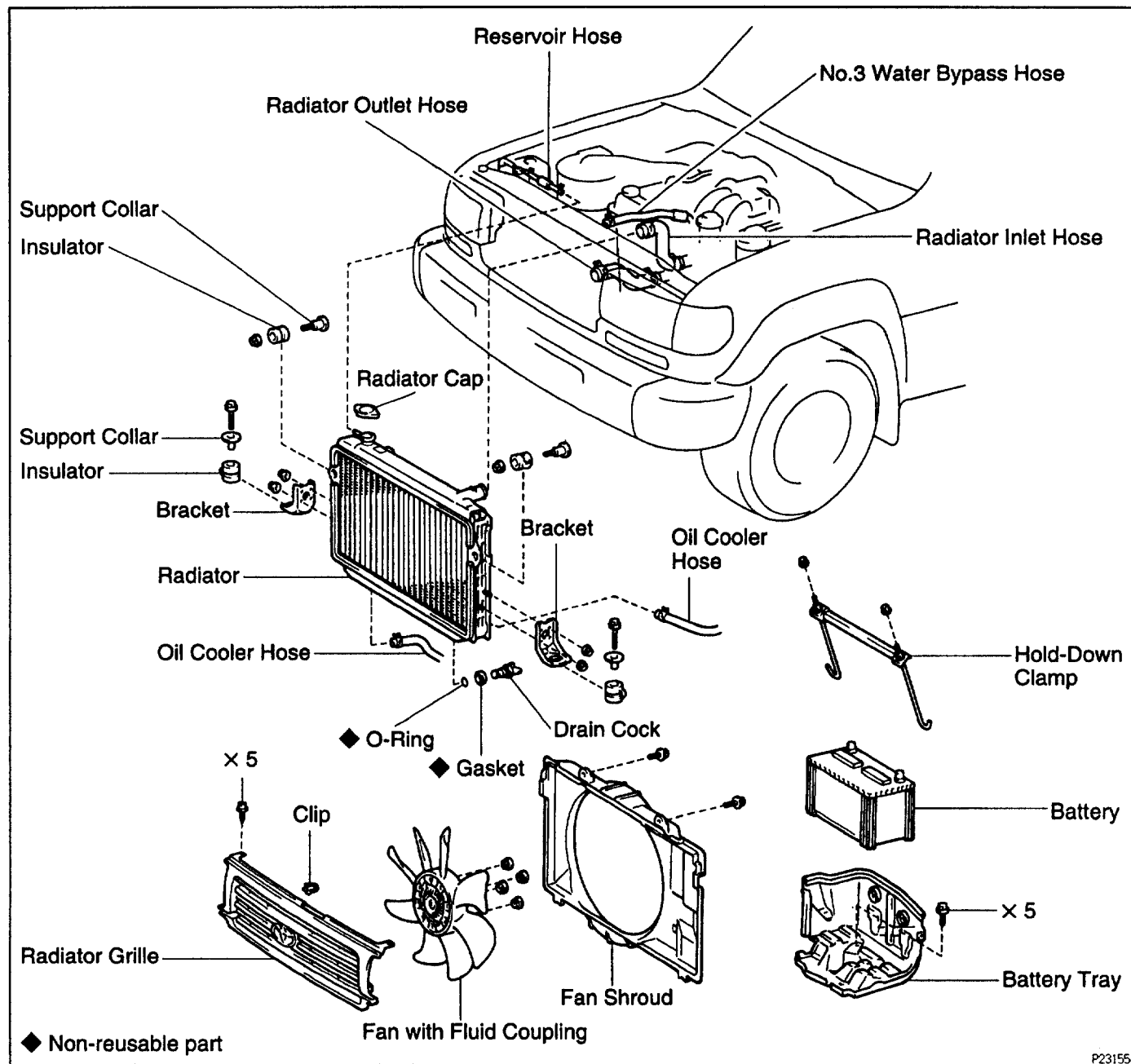
- Fill the radiator with coolant and attach a radiator cap tester.
- Warm up the engine.
- Pump it to 118 kPa (1.2 kgf/cm², 17.1 psi), and check that the pressure does not drop.

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.

4. REINSTALL RADIATOR CAP

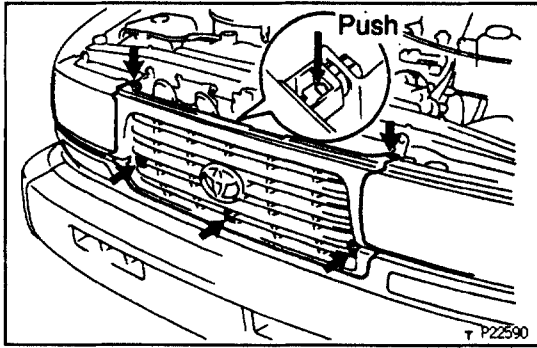


COMPONENTS FOR REMOVAL AND INSTALLATION



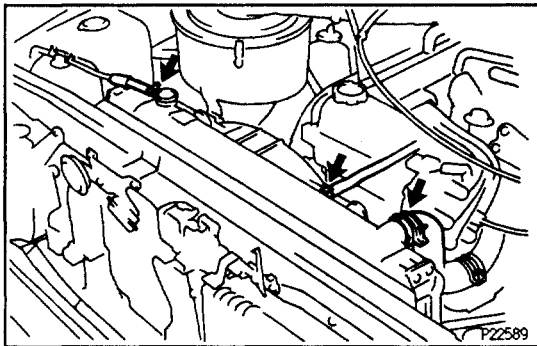
RADIATOR REMOVAL

1. DRAIN ENGINE COOLANT
2. REMOVE BATTERY AND BATTERY TRAY
 - (a) Disconnect the battery cables.
 - (b) Remove the nuts, hold-down clamp and battery.
 - (c) Remove the bolt and disconnect the ground strap.
 - (d) Remove the 5 bolts and battery tray.



3. REMOVE RADIATOR GRILLE

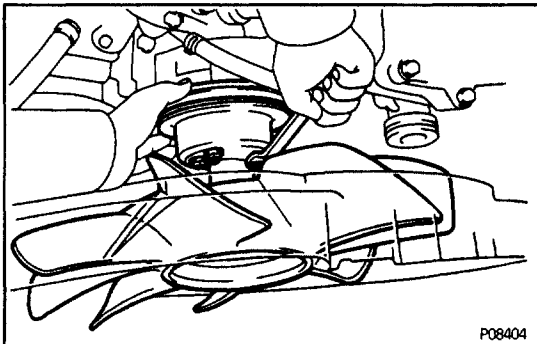
Remove the 5 screws, clip and radiator grille.



4. DISCONNECT NO.3 WATER BYPASS HOSE

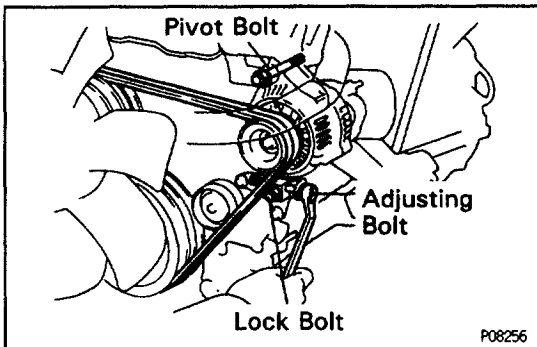
5. DISCONNECT RADIATOR INLET HOSE

6. DISCONNECT RADIATOR RESERVOIR HOSE

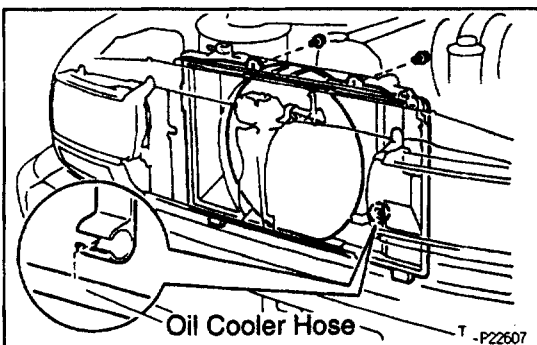


7. REMOVE RADIATOR

- (a) Stretch the belts and loosen the water pump pulley mounting nuts.



- (b) Loosen the lock, pivot and adjusting bolts of the generator, and remove the drive belts.

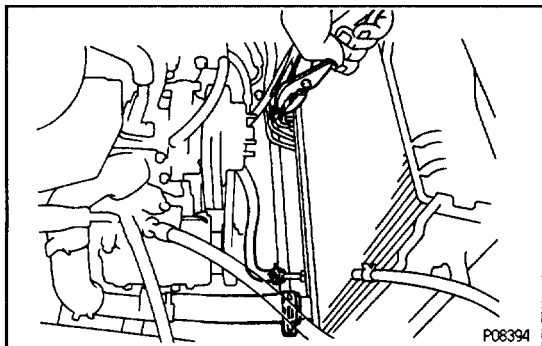


- (c) Disconnect the oil cooler hose from the clamp on the fan shroud.

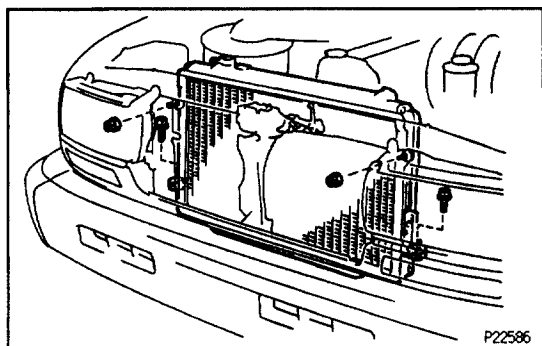
- (d) Remove the 2 bolts holding the fan shroud to the radiator.

- (e) Remove the 4 water pump pulley mounting nuts.

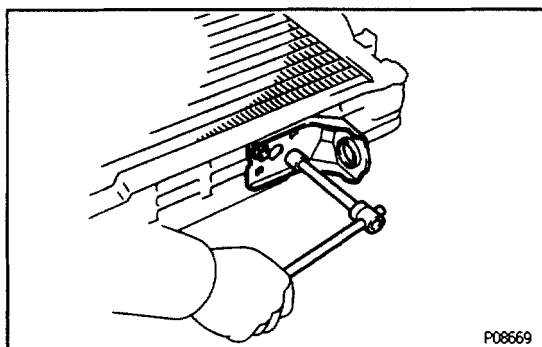
- (f) Pull out the fan with fluid coupling, water pump pulley and fan shroud.



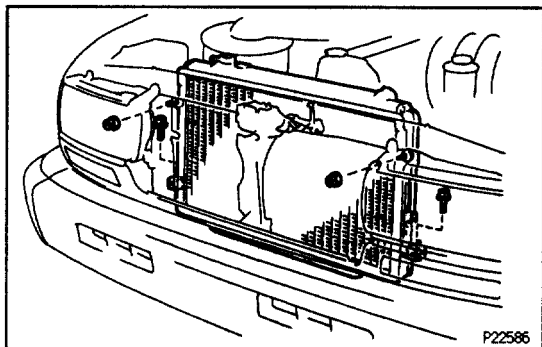
8. **DISCONNECT A/T OIL COOLER HOSES**
9. **DISCONNECT RADIATOR OUTLET HOSE**



10. **REMOVE RADIATOR**
 - (a) Remove the 2 bolts, 2 nuts and radiator.

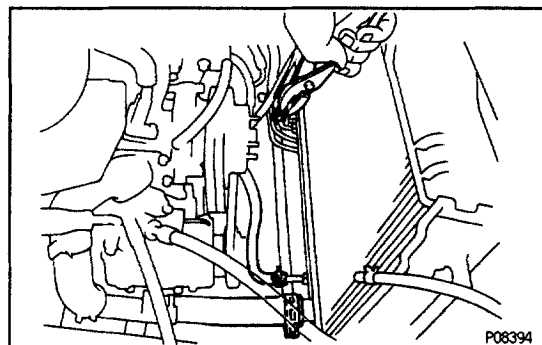


- (b) Remove the 4 nuts and 2 radiator brackets.

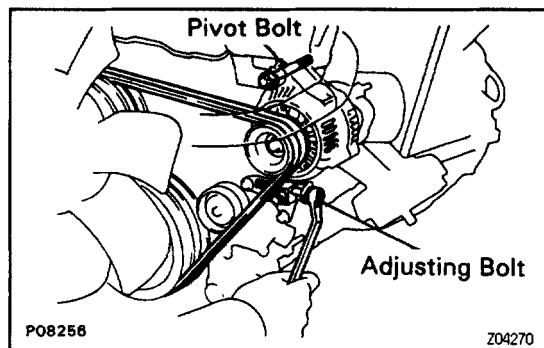


RADIATOR INSTALLATION

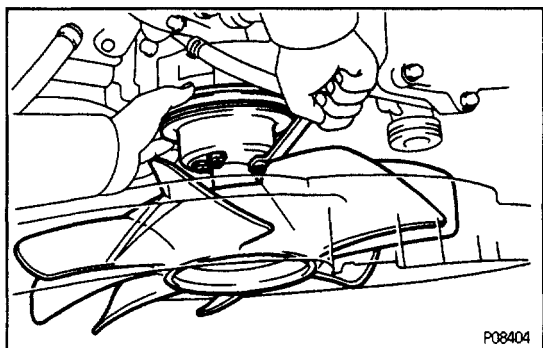
1. **INSTALL RADIATOR**
 - (a) Install the 2 radiator brackets with the 4 nuts.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)
 - (b) Install the radiator with the 2 bolts and 2 nuts.
Torque:
 Bolt: 18 N·m (185 kgf·cm, 13 ft·lbf)
 Nut: 12 N·m (120 kgf·cm, 9 ft·lbf)



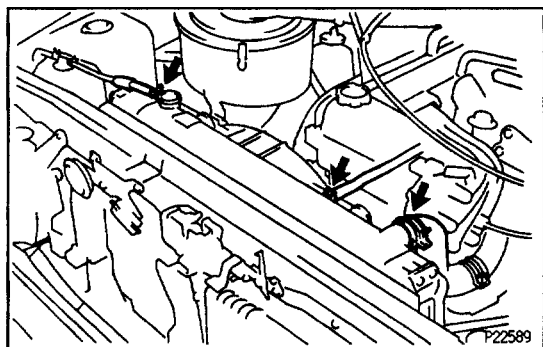
2. **CONNECT A/T OIL COOLER HOSES**
3. **CONNECT RADIATOR OUTLET HOSE**
4. **INSTALL WATER PUMP PULLEY, FAN SHROUD, FAN WITH FLUID COUPLING AND DRIVE BELTS**
 - (a) Place the fan with fluid coupling, water pump pulley and fan shroud in position.
 - (b) Temporarily install the fan pulley mounting nuts.
 - (c) Install the fan shroud with the 2 bolts.
Torque: 5.0 N·m (50 kgf·cm, 43 in·lbf)



- (d) Connect the oil cooler hose to the clamp on the fan shroud.
- (e) Install the drive belts with the adjusting bolt and pivot bolt.

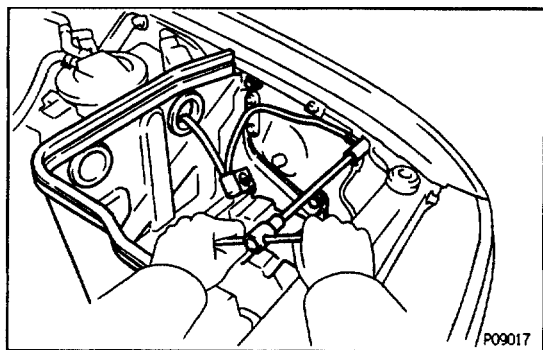


- (f) Stretch the belts tight and tighten the 4 water pump pulley mounting nuts.
- (g) Adjust the drive belts.
(See on-vehicle inspection in Charging System)



5. **CONNECT RADIATOR RESERVOIR HOSE**
6. **CONNECT RADIATOR INLET HOSE**
7. **CONNECT NO.3 WATER BYPASS HOSE**
8. **INSTALL RADIATOR GRILLE**

Install the radiator grille with the 5 screws and clip.



9. **INSTALL BATTERY AND BATTERY TRAY**

- (a) Install the battery tray with the 5 bolts.
- (b) Connect the ground strap with the bolt.
- (c) Install the battery with the hold-down clamp and nuts.
- (d) Connect the battery cables.

10. **FILL RADIATOR WITH ENGINE COOLANT**

11. **START ENGINE AND CHECK FOR LEAKS**

12. **CHECK AUTOMATIC TRANSMISSION FLUID LEVEL**