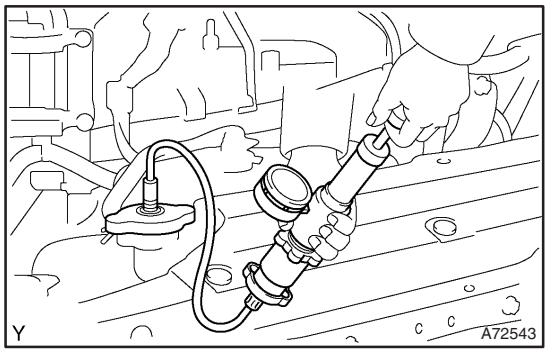
COOLING SYSTEM (1GR–FE)(From August, 2004)

160J8–05

ON–VEHICLE INSPECTION



1. INSPECT COOLING SYSTEM FOR LEAKS

CAUTION:

To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot. Thermal expansion will cause hot engine coolant and steam to blow out from the radiator.

(a) Fill the radiator with coolant water and attach a radiator cap tester.

(b) Pump it to 118 kPa (1.2 kgf/cm^2, 17.1 psi) and check that the pressure does not drop.

HINT:

If the pressure drops, check the hoses, radiator and water pump for leaks. If the coolant has not leaked outside, check the heater core, the cylinder block and the cylinder head.

2. CHECK ENGINE COOLANT LEVEL AT RESERVOIR

(a) Check that the engine coolant level is between the ”LOW” and ”FULL” lines when the engine is cold.

HINT:

If it is below the ”LOW” line, check for leaks and add ”Super Long Life Coolant” or similar high quality ethylene glycol based non–silicate, non–amine, non–nitrite, and non–borate coolant with long–life hybrid organic acid technology up to the ”FULL” line.

3. CHECK ENGINE COOLANT QUALITY

(a) Remove the radiator cap.

CAUTION:

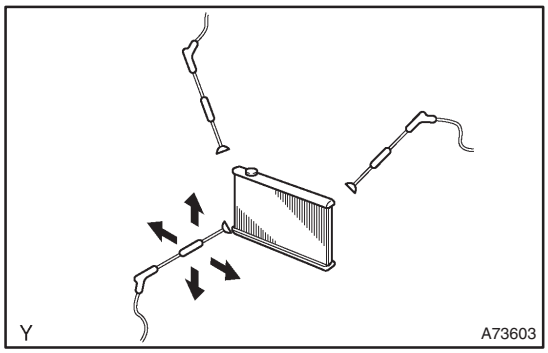
To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot. Thermal expansion will cause hot engine coolant and steam to blow out from the radiator.

(b) Check around the radiator cap and radiator filler hole for any excessive deposits of rust or scale, and that the coolant is free from oil.

HINT:

If excessively dirty, replace the coolant.

(c) Reinstall the radiator cap.



4. INSPECT FINS BLOCKAGE

(a) If the fins are clogged, wash them with water or a steam cleaner, then dry with compressed air.

NOTICE:

- **If the distance between the steam cleaner and the core is too close, there is a possibility of damaging the fins, so keep the following injection distance.**

Injection Pressure kPa (kg/cm^2, psi)	Injection Distance mm (in.)
2,942 to 4,903 (30 to 50, 427 to 711)	300 (11.811)
4,903 to 7,845 (50 to 80, 711 to 1,138)	500 (19.685)

- **If the fins are bent, straighten them with a screwdriver or pliers.**
- **Be careful not to expose the electronic components to water.**