

TROUBLESHOOTING

Problem	Possible cause	Remedy	Page
Engine overheats	Dirt, leaves or insects in radiator or condenser Hoses, water pump, thermostat housing, radiator, heater, core plugs or head gasket leakage Thermostat faulty Incorrect ignition timing Electric cooling system faulty Radiator hose plugged or rotten Water pump faulty Radiator plugged or cap faulty Cylinder head or block cracked or water passage clogged	Clean radiator or condenser Repair as necessary	CO-20
		Check thermostat Reset timing	CO-17 IG-24, 29 37 CO-27
		Inspect electric cooling system Replace hose Replace water pump Check radiator and cap Repair as necessary	CO-7, 11 CO-20

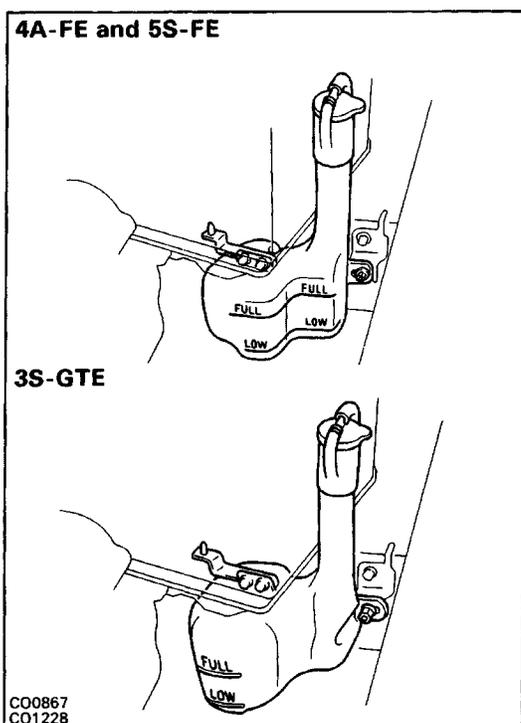
HINT: Removal of the thermostat would have an adverse effect, causing a lowering of cooling efficiency. Do not remove the thermostat, even if the engine tends to overheat.

CHECK AND REPLACEMENT OF ENGINE COOLANT

1. CHECK ENGINE COOLANT LEVEL AT RESERVOIR TANK

The coolant level should be between the "LOW" and "FULL" lines.

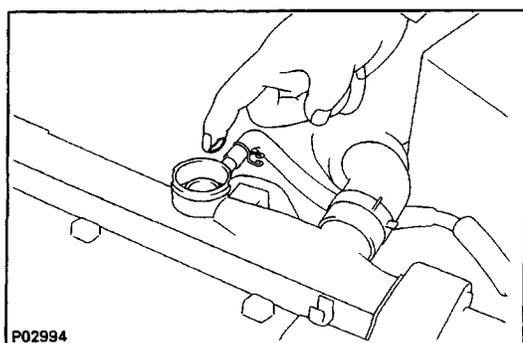
If low, check for leaks and add coolant up to the "FULL" line.

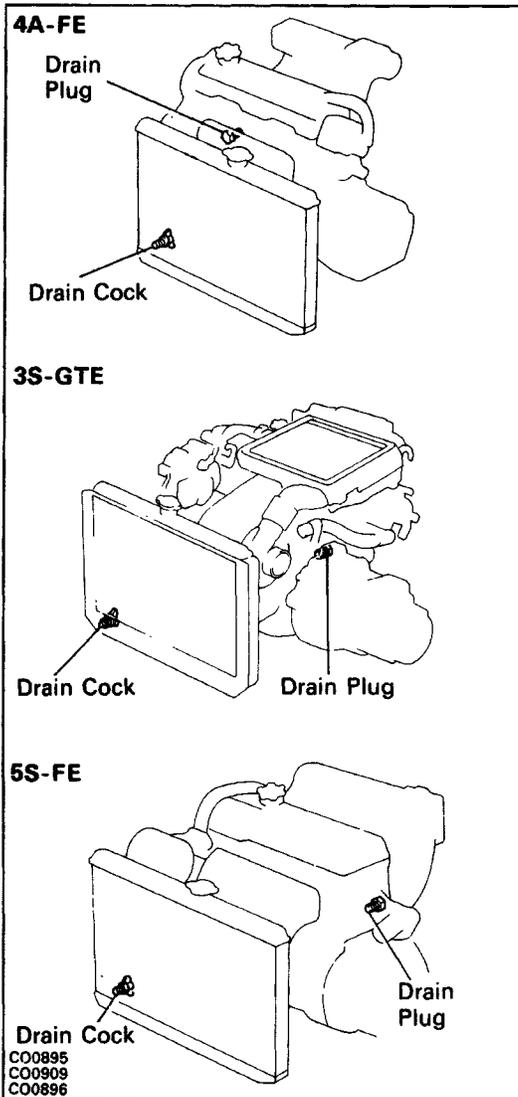


2. CHECK ENGINE COOLANT QUALITY

There should not be any excessive deposits of rust or scales around the radiator cap or radiator filler hole, and the coolant should be free from oil.

If excessively dirty, replace the coolant.





3. REPLACE ENGINE COOLANT

(a) Remove the radiator cap.

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

(b) Drain the coolant from the radiator drain cock and engine drain plug.

LOCATION (Engine drain plug):

4A-FE In the cylinder block on the front right side.

3S-GTE and 5S-FE In the cylinder block on the rear left side.

(c) Close the drain cock and plug.

Torque (Engine drain plug):

4A-FE 34 N-m (350 kgf-cm, 25 ft-lbf)

3S-GTE and 5S-FE 25 N-m (250 kgf-cm, 18 ft-lbf)

(d) Slowly fill the system with coolant.

- Use a good brand of ethylene-glycol base coolant, mixed according to the manufacturer's directions.
- Using coolant which includes more than 50% ethylene-glycol (but not more than 70%) is recommended.

NOTICE:

- Do not use alcohol type coolant.
- The coolant should be mixed with demineralized water or distilled water.

Capacity (w/ Heater):

4A-FE M/T 5.2 liters (5.5 US qts, 4.6 Imp. qts)

A/T 5.6 liters (5.9 US qts, 4.9 Imp. qts)

3S-GTE 6.5 liters (6.9 US qts, 5.7 Imp. qts)

5S-FE M/T 6.2 liters (6.6 US qts, 5.5 Imp. qts)

A/T 6.1 liters (6.4 US qts, 5.4 Imp. qts)

(e) Reinstall the radiator cap.

(f) Warm up the engine and check for leaks.

(g) Recheck the coolant level and refill as necessary.