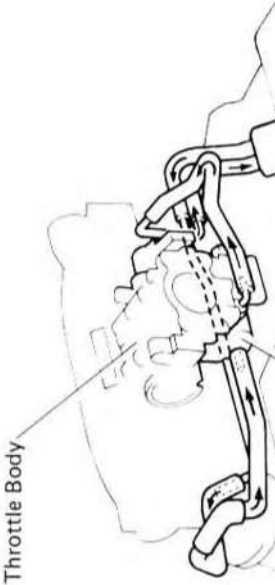


COOLING SYSTEM

REFER TO 1988 CELICA REPAIR MANUAL (Pub. No. RM071U)

NOTE: The following pages contain only the points which differ from the above listed manual.

DESCRIPTION	Page CO-2
CHECK AND REPLACEMENT OF ENGINE COOLANT	CO-4
ELECTRIC COOLING FAN	CO-4

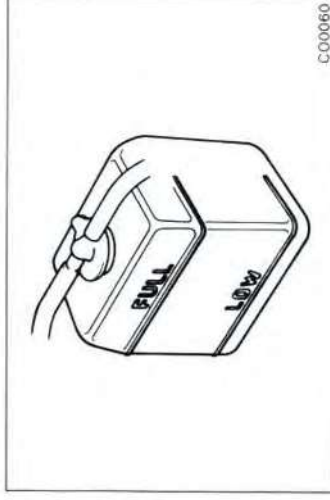
C0-2	COOLING SYSTEM — Description
DESCRIPTION	This engine utilizes a pressurized water forced circulation cooling system which includes a thermostat equipped with a bypass valve mounted on the inlet side. 

COOLING SYSTEM — Description		CO-3
The cooling system is composed of the water jacket (inside the cylinder block and cylinder head), radiator, water pump, thermostat, electric fan, hoses and other components. Coolant which is heated in the water jacket is pumped to the radiator, through which an electric fan blows air to cool the coolant as it passes through. Coolant which has been cooled is then sent back to the engine by the water pump, where it cools the engine. The water jacket is a network of channels in the shell of the cylinder block and cylinder head through which coolant passes. It is designed to provide adequate cooling of the cylinders are combustion chambers which become the hottest during engine operation.	allows the pressure in the cooling system to return to the coolant in the reservoir tank. RESERVOIR TANK The reservoir tank is used to catch coolant which overflows the cooling system as a result of volumetric expansion when the coolant is heated. The coolant in the reservoir tank returns to the radiator when the coolant temperature drops, thus keeping the radiator full at all times and avoiding needless coolant loss. Check the reservoir tank level to learn if the coolant needs to be replenished. WATER PUMP The water pump is used for forced circulation of coolant through the cooling system. It is mounted on the front of the cylinder block and driven by a timing belt. THERMOSTAT The thermostat has a wax type bypass valve and is mounted in the water inlet housing. The thermostat includes a type of automatic valve operation.	
RADIATOR The radiator performs the function of cooling the coolant which has passed through the water jacket and become hot, and is mounted in the front of the vehicle. The radiator consists of an upper tank and lower tank, and a core which connects the two		

CO-4 COOLING SYSTEM — Check and Replacement of Engine Coolant, Electric Cooling Fan**CHECK AND REPLACEMENT OF ENGINE COOLANT****1. CHECK ENGINE COOLANT LEVEL AT RESERVE TANK**

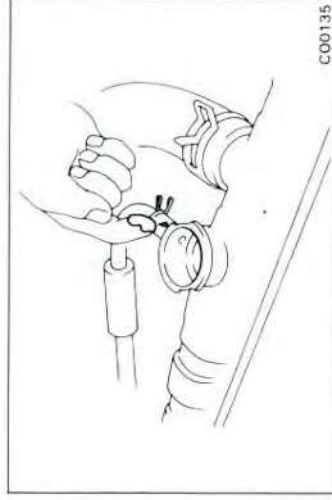
The coolant level should be between the "LOW" and "FULL" lines.

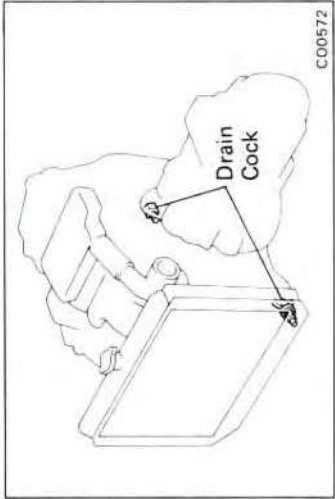
If low, check for leaks and add coolant up to the "FULL" line.

**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.
- (b) Drain the coolant from the radiator and engine drain cocks. (Engine drain cock at the right rear of engine block.)
- (c) Close the drain cocks.

Torque (Engine drain cock):
130 kg-cm (9 ft-lb, 13 N·m)

- (d) Fill the system with coolant.

Use a good brand of ethylene-glycol base coolant, mixed according to the manufacturer's directions.

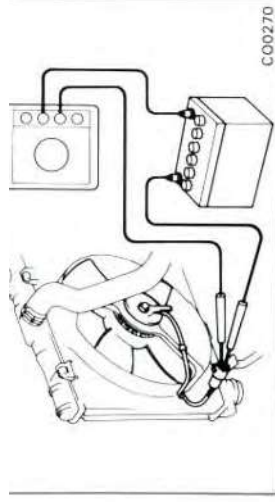
Capacity (w/ Heater):

8.0 liters (8.5 US qts, 7.0 Imp. qts)

- (e) Install the radiator cap.
- (f) Start the engine and check for leaks.
- (g) Recheck the coolant level and refill as necessary.

ELECTRIC COOLING FAN
INSPECTION OF ELECTRIC COOLING FAN





COMPONENTS

INSPECT COOLING FAN MOTOR

- Connect battery and ammeter to the fan motor connector.
- Check that the fan motor rotates smoothly, and check the reading on the ammeter.

Standard amperage: 8.8 – 10.8 A