ENGINE COOLANT

 Check drained engine coolant for contaminants such as rust, corrosion or discoloration. If contaminated, flush the engine cooling system. Refer to <u>CO-12, "FLUSHING COOLING SYSTEM"</u>.

REFILLING ENGINE COOLANT

1. Install reservoir tank, and radiator drain plug.

CAUTION:

Be sure to clean drain plug and install with new O-ring.

Radiator drain plug:

9: 0.78 - 1.6 N·m (0.08 - 0.16 kg-m, 7 - 14 in-lb)

- If cylinder block drain plugs are removed, close and tighten them. Refer to EM-114, "ASSEMBLY" .
- 2. Remove air relief plug on heater hose.

- 3. Fill radiator and reservoir tank to specified level.
 - Pour engine coolant through engine coolant filler neck slowly of less than 2 ℓ (2-1/8 US qt, 1-3/4 Imp qt) a minute to allow air in system to escape.
 - Use Genuine Nissan Long Life Antifreeze/ Coolant or equivalent mixed with water (distilled or demineralized). Refer to <u>GI-47, "RECOMMENDED CHEMICAL PRODUCTS</u> <u>AND SEALANTS"</u>.

Engine coolant capacity (Approximate) (with reservoir tank at "MAX" level)

: 8.7 ℓ (9-1/4 US qt, 7-5/8 Imp qt)

Reservoir tank capacity (at "MAX" level)

: 0.8 ℓ (7/8 US qt, 3/4 Imp qt)

• When engine coolant overflows air relief hole on heater hose, install air relief plug with new O-ring.

Air relief plug:

(●: 0.78 - 1.6 N·m (0.08 - 0.16 kg-m, 7 - 14 in-lb)



- 4. Warm up engine to normal operating temperature with radiator cap installed.
- 5. Run engine at 3,000 rpm for 10 seconds and return to idle speed.
 - Repeat two or three times.

CAUTION:

Watch water temperature gauge so as not to overheat engine.

- 6. Stop engine and cool down to less than approximately $50^{\circ}C$ (122°F).
 - Cool down using a fan to reduce the time.
 - If necessary, refill radiator up to filler neck with engine coolant.
- 7. Refill reservoir tank to "MAX" level line with engine coolant.







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- 8. Repeat steps 3 through 6 two or more times with radiator cap installed until engine coolant level no longer drops.
- 9. Check cooling system for leaks with engine running.
- 10. Warm up engine, and check for sound of engine coolant flow while running engine from idle up to 3,000 rpm with heater temperature controller set at several position between "COOL" and "WARM".
 - Sound may be noticeable at heater unit.
- 11. Repeat step 10 three times.
- 12. If sound is heard, bleed air from cooling system by repeating step 3 through 6 until engine coolant level no longer drops.
 - Clean excess engine coolant from engine.

FLUSHING COOLING SYSTEM

- 1. Fill radiator with water until water spills from the air relief hole, then close air relief plug. Fill radiator and reservoir tank with water and reinstall radiator cap.
- 2. Run engine and warm it up to normal operating temperature.
- 3. Rev engine two or three times under no-load.
- 4. Stop engine and wait until it cools down.
- 5. Drain water from the system. Refer to CO-10, "DRAINING ENGINE COOLANT" .
- 6. Repeat steps 1 through 5 until clear water begins to drain from radiator.

RADIATOR



WARNING:

Do not remove radiator cap when engine is hot. Serious burns could occur from high-pressure engine coolant escaping from radiator.

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REMOVAL

- 1. Remove engine cover with power tool. Refer to EM-17, "INTAKE MANIFOLD COLLECTOR".
- 2. Remove undercover with power tool.
- 3. Drain engine coolant from radiator. Refer to <u>CO-10, "Changing Engine Coolant"</u>. CAUTION:

Perform when the engine is cold.

- 4. Disconnect A/T fluid cooler hoses. (A/T models)
 - Install blind plug to avoid leakage of A/T fluid.
- 5. Remove air duct (inlet) and air cleaner case. Refer to EM-15, "AIR CLEANER AND AIR DUCT" .
- 6. Remove bracket mounting bolt for anchoring A/C piping from vehicle left side, so that A/C piping can be moved.
- 7. Remove reservoir tank and bracket.