

COOLING SYSTEM SPECIFICATIONS

1988 Toyota Celica

1988 ENGINE COOLING
Toyota Cooling System Specifications

Camry, Celica, Corolla, Cressida, Land Cruiser, MR2,
Pickup, 4Runner, Supra, Tercel & Van

ENGINE COOLANT SPECIFICATIONS

THERMOSTAT

Most thermostats are thermal wax pellet type. As coolant temperature rise the wax begins to expand. This expansion overcomes spring tension allowing the thermostat to open. Some thermostats also incorporate an additional bleed hole to allow a small amount of circulation and eliminate air blocks.

PRESSURE CAP

Modern cooling systems use a closed system type cap. This system allows for coolant to expand and build pressure, some coolant is permitted to bleed past the cap into the overflow tank. When the engine cools and coolant contracts, the cap allows the coolant in the overflow tank to siphon back into the system.

The pressure cap also increases pressure in the cooling system. The increased pressure raises the boiling point, one pound of pressure increases the boiling point approximately 3°F (1.66°C).

COOLANT MIXTURE

Engine coolant must be mixed with water to a specific percent. A 100 % coolant mixture could cause system overheating or premature system failure. Coolants are designed to function best when mixed with water. The percentage of coolant to water can vary depending on climate condition, but a 50/50 mixture is a standard percentage. Engine coolant should also include an aluminum protection additive. This will help protect against metal deterioration.

MAINTENANCE

Periodic maintenance is necessary for extended cooling system and engine life, because engine and cooling system are made of different metals. Changing the coolant at scheduled maintenance periods reduces electrolysis and removes sediments.

COOLING SYSTEM APPLICATION CHART

| APPLICATION | PRESSURE CAP PSI | COOLANT CAPACITY | THERMOSTAT OPEN | | COOLING FAN | |
|-----------------------|------------------|------------------|-----------------|----------|-------------|----------|
| | | | °F (°C) | °F (°C) | °F (°C) | °F (°C) |
| Camry | 11-15 | 7.4 (7.0) | 180 (82) | 203 (95) | 194 (90) | 181 (83) |
| Celica | 11-15 | 7.2 (6.8) | 180 (82) | 203 (95) | 194 (90) | 181 (83) |
| Corolla Exc. FX-16 | 11-15 | 6.3 (6.0) | 180 (82) | 203 (95) | 194 (90) | 181 (83) |
| Corolla | 11-15 | 6.3 (5.6) | 180 (82) | 203 (95) | 199 (93) | 181 (83) |

| | | | | | | |
|----------------------------|-------|----------------|----------|--------------|-----------------|-----------------|
| FX-16 | | | | | | |
| Corolla FX-16 | 11-15 | 6.3 (6.0) | 180 (82) | 203 (95) | 199 (93) | 181 (83) |
| Cressida | 11-15 | 8.7 (8.2) | 191 (88) | 212 (100) | 194 (90) | 181 (83) |
| Land Cruiser | 11-15 | 17.4 (16.5) | 191 (88) | 212 (100) | .... | .... |
| MR2 | 11-15 | 13.5 (12.8) | 180 (82) | 203 (95) | 199 (93) (1) | 181 (83) (1) |
| P/U; 4Runner (2.4L) | 11-15 | 8.9 (8.4) | 191 (88) | 212 (100) | .... | .... |
| P/U; 4Runner (2.4L) | 11-15 | 8.9 (8.4) | 191 (88) | 212 (100) | .... | .... |
| P/U; 4Runner (3.0L A/T) | 11-15 | 10.6 (10.0) | 180 (82) | 203 (95) | .... | .... |
| P/U; 4Runner (2.4L M/T) | 11-15 | 11.0 (10.4) | 180 (82) | 203 (95) | .... | .... |
| Supra | 11-15 | 8.6 (8.1) | 191 (88) | 212 (100) | .... | .... |
| Tercel | 11-15 | 4.9 (4.6) | 180 (82) | 203 (95) | 194 (90) | 181 (83) |
| Van 2WD | 11-15 | 8.9 (8.4) | 180 (82) | 203 (95) | .... | .... |
| Van 4WD | 11-15 | 7.8 (7.4) | 180 (82) | 203 (95) | .... | .... |

(1) - Engine compartment temperature switch comes on at 176°F (80°C), and goes off at 147°F (64°C).