

The low speed cooling fan is commanded on when the coolant temperature reaches 108°C (226°F). It is turned off if the coolant temperature lowers to 104°C (219°F). The high speed cooling fan is commanded on when the coolant temperature reaches 113°C (235°F). It is turned off if the coolant temperature lowers to 108°C (226°F). When the A/C is on and the coolant temperature reaches 85°C (185°F), the low speed cooling fan will be turned on at vehicle speeds less than 56 kPh (35 mph).

Normal driving with driving speed that flows sufficient air across the radiator with the AC off, the coolant temperature with a factory thermostat is 190°F, The fans will be off. The factory setting will not let the first cooling fan come on until the coolant reaches 226°F.

The low speed cooling fan is commanded on when the coolant temperature reaches 226°F. It is turned off if the coolant temperature lowers to 219°F. The high speed cooling fan is commanded on when the coolant temperature reaches 235°F. It is turned off if the coolant temperature lowers to 226°F. When the A/C is on and the coolant temperature reaches 185°F, the low speed cooling fan will be turned on at vehicle speeds less than 35 mph.

The low speed cooling fans are controlled by the PCM based on the following inputs:

- The A/C system

- The Engine Coolant Temperature (ECT) sensor

- The Vehicle Speed Sensor (VSS)

The PCM will turn the low speed cooling fans ON when any of the following conditions exist at idle:

- Certain PCM Diagnostic Trouble Codes (DTCs) are set

- ECT above 104°C (219°F) will enable low speed fans

- A/C head pressure above 1510 kPa (219 psi)

Once the low speed fans are turned ON by Engine Coolant Temperature, the PCM will turn the fans OFF when that temperature has dropped about 6°C (11°F) . If the low speed cooling fans are turned ON by high A/C head pressure, the PCM will turn the fans OFF when the pressure has dropped to 1034 kPa (150 psi). The minimum ON time for the low speed cooling fans is 50 seconds.

When engine speed is above 3500 RPM for 12 seconds and the engine oil temperature is above 127°C (261 °F), the low speed cooling fans will be turned ON.

HIGH SPEED COOLING FANS

The High Speed Cooling Fans are controlled by the PCM based on the following inputs:

- The A/C system

- The Engine Coolant Temperature (ECT) sensor

- The Vehicle Speed Sensor (VSS)

The PCM will enable high speed cooling for both fans when any of the following conditions exist:

- Certain PCM Diagnostic Trouble Codes (DTCs) set

- ECT above 109°C (228°F)

- A/C head pressure above 1551 kPa (225 psi)

Once the high speed cooling fans are turned ON by the Engine coolant temperature, the PCM will turn the fans OFF when that temperature has dropped about 6°C (11°F) . If the high speed cooling fans are turned ON by high A/C head pressure, the PCM will turn the fans OFF when the pressure has dropped to 1241 kPa (180 psi). The minimum ON time for the high speed cooling fans is 26 seconds.

When driving/ cruising the engine should run close to what the thermostat is rated.