

## FAN CONTROL MODULE [SKYACTIV-D 2.2]

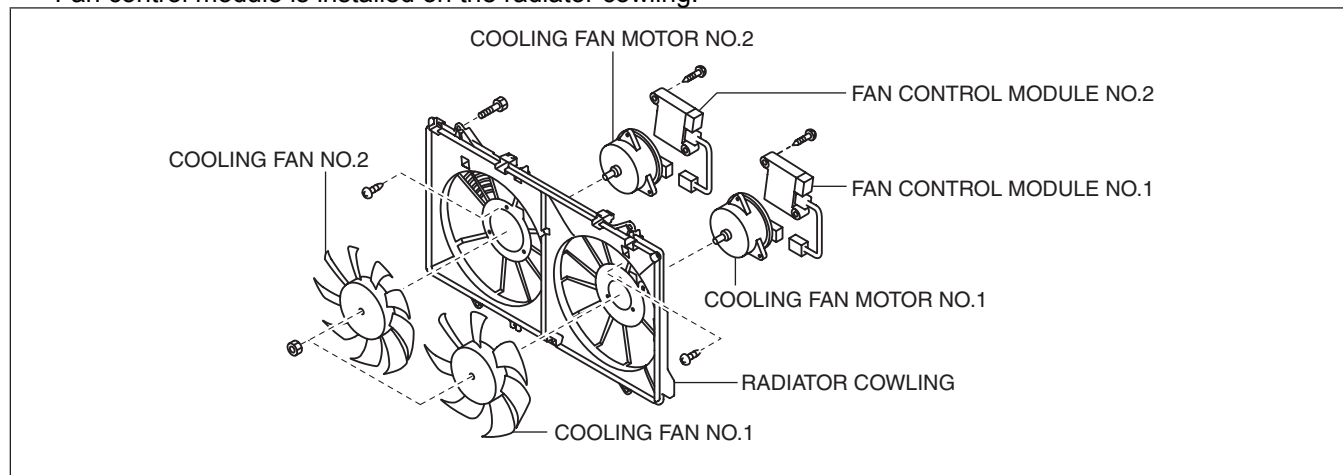
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### Purpose, Function

- The fan control module operates by receiving the signal from the PCM to supply power to the cooling fan motor.

### Construction

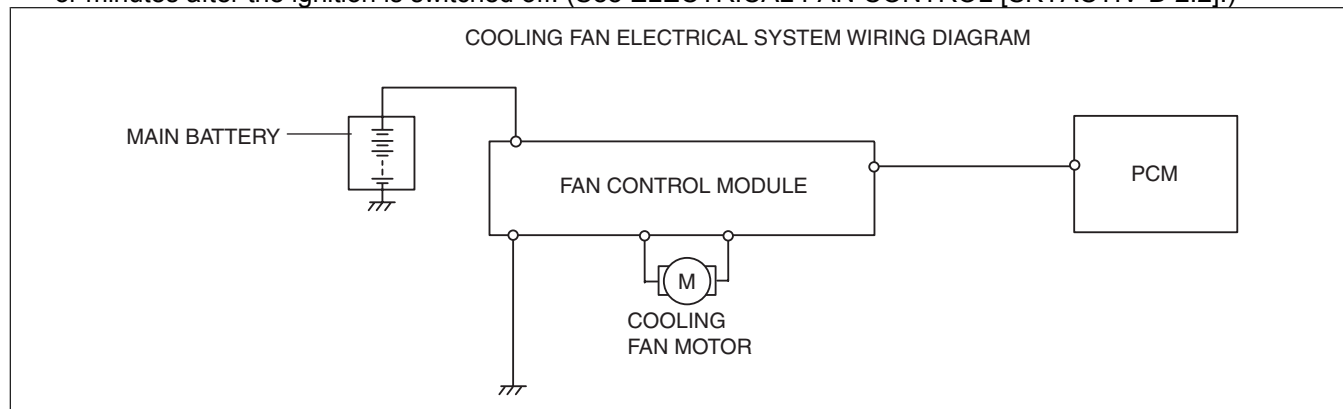
- Fan control module is installed on the radiator cowling.



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### Operation

- The fan control module allows continuously variable control of the cooling fan motor rotation rate, reducing fan operation noise and power consumption.
- Based on the input signals from the control parts, the cooling fan may remain operational for several seconds or minutes after the ignition is switched off. (See ELECTRICAL FAN CONTROL [SKYACTIV-D 2.2].)



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### Fail-safe

The fan control module has a power supply function to operate the cooling fan motor and the following protection functions.

- Over-current fail-safe
  - If the electrical current to the cooling fan motor exceeds a certain value, the excess-current protection function of the fan control module operates, and the current value to the cooling fan motor is controlled at less than a specified value.
- Over heat fail-safe
  - If the temperature inside the fan control module reaches a certain temperature or more, the overheating protection function of the fan control module operates in the following order.
    - The rotation speed of the cooling fan motor is increased to increase cool air flow to the fan control module.
    - If the temperature increases further, the cooling fan motor is stopped to suppress heat generation from energization.
- Input signal open circuit fail-safe
  - If an open circuit occurs in the wiring harness between the PCM and fan control module, the input signal open circuit protection function of the fan control module operates to increase the rotation speed of the cooling fan motor to avoid engine overheating.