

P0693: COOLING FAN 2 RELAY CONTROL CIRCUIT LOW

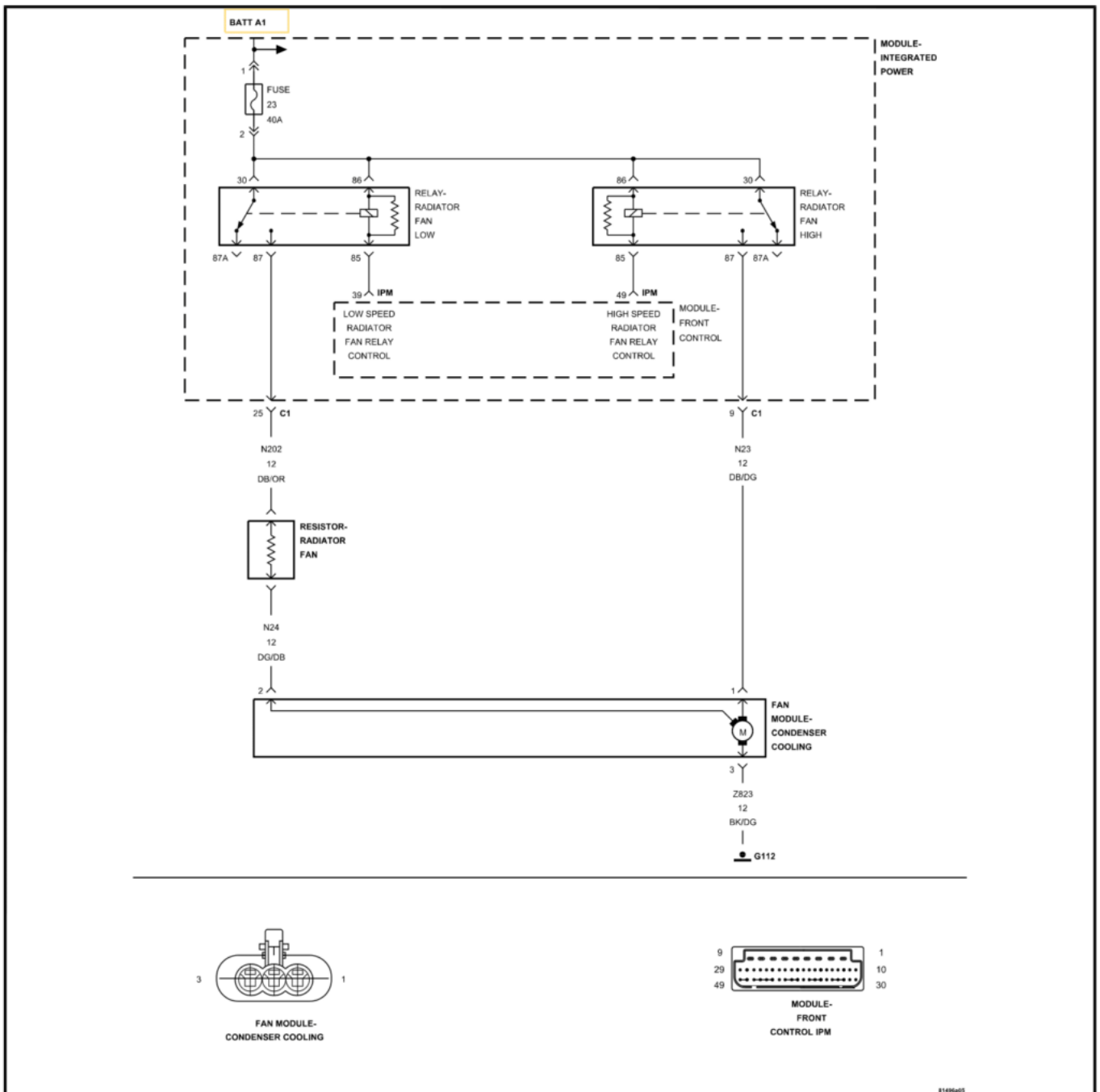
OVERVIEW

Severity	:	<div>High</div>
DIY Difficulty Level	:	<div>Intermediate</div>
Repair Cost	:	\$50-\$200
Can I Still Drive?	:	Yes

What Does The P0693 Code Mean?

The fans that are used to cool the engines radiator are run by electric motors. These motors are turned on and off by the powertrain control module (PCM) according to the readings from the engine coolant temperature sensor (ECT). In other words when the ECT reaches a predetermined temperature the PCM turns the fans on. Then when the ECT cools to a predetermined temperature the PCM turns the fans off.

The PCM controls the cooling fans by sending a ground signal to the cooling fan relay. The voltage on the signal circuit is high, around battery voltage, when not commanded on (not grounded). The opposite is true when commanded on (grounded), the voltage is somewhere near zero. DTC P0693 is set when the PCM senses the voltage low when the cooling fan 2 is off.



P0693 wiring diagram

What Are The Symptoms Of The P0693 Code?

Symptoms of a P0693 code may include:

- Engine overheating
- Check engine light on

What Are The Potential Causes Of The P0693 Code?

Potential causes for this code to set are:

- Faulty cooling fan relay 2
- Blown cooling fan 2 fuse
- Faulty PCM (rarely)

How Can You Fix The P0693 Code?

In my experience a blown cooling fan fuse is the most common cause of this DTC. Checking the fuse is as simple as locating, pulling it and looking at it. You can generally tell by visual inspection if a fuse is good or not. If the fuse is in fact blown, try replacing it with the correct amperage of fuse. If the fuse blows again the next question would be when did it blow?

If the fuse failed immediately upon replacing it then there is a direct short somewhere between the fuse and the relay. If it failed when the engine reached operating temperature then the most likely cause is the cooling fan motor itself.

With the engine and the ignition key off, carefully try and spin the fan blades by hand. They should spin freely, if it does not then the fan motor is frozen and will need replacement. If the fuse is good then the problem is most likely the cooling fan relay. If replacing the relay does not solve the problem suspect a faulty PCM.

Be sure to use caution when working around components that are not only hot but also moving.

Severity Description

The possibility of the engine overheating due to non-operational cooling fans is very probable so caution should be used if driving the vehicle when the conditions to set this DTC are present. It should be repaired as soon as possible.

Reference Sources

[Diagnostic Trouble Code \(DTC\) Guide for P0693](#) - Ominitek Advanced Technologies, page 136.