

P0507: IDLE AIR CONTROL SYSTEM RPM HIGHER THAN EXPECTED

OVERVIEW

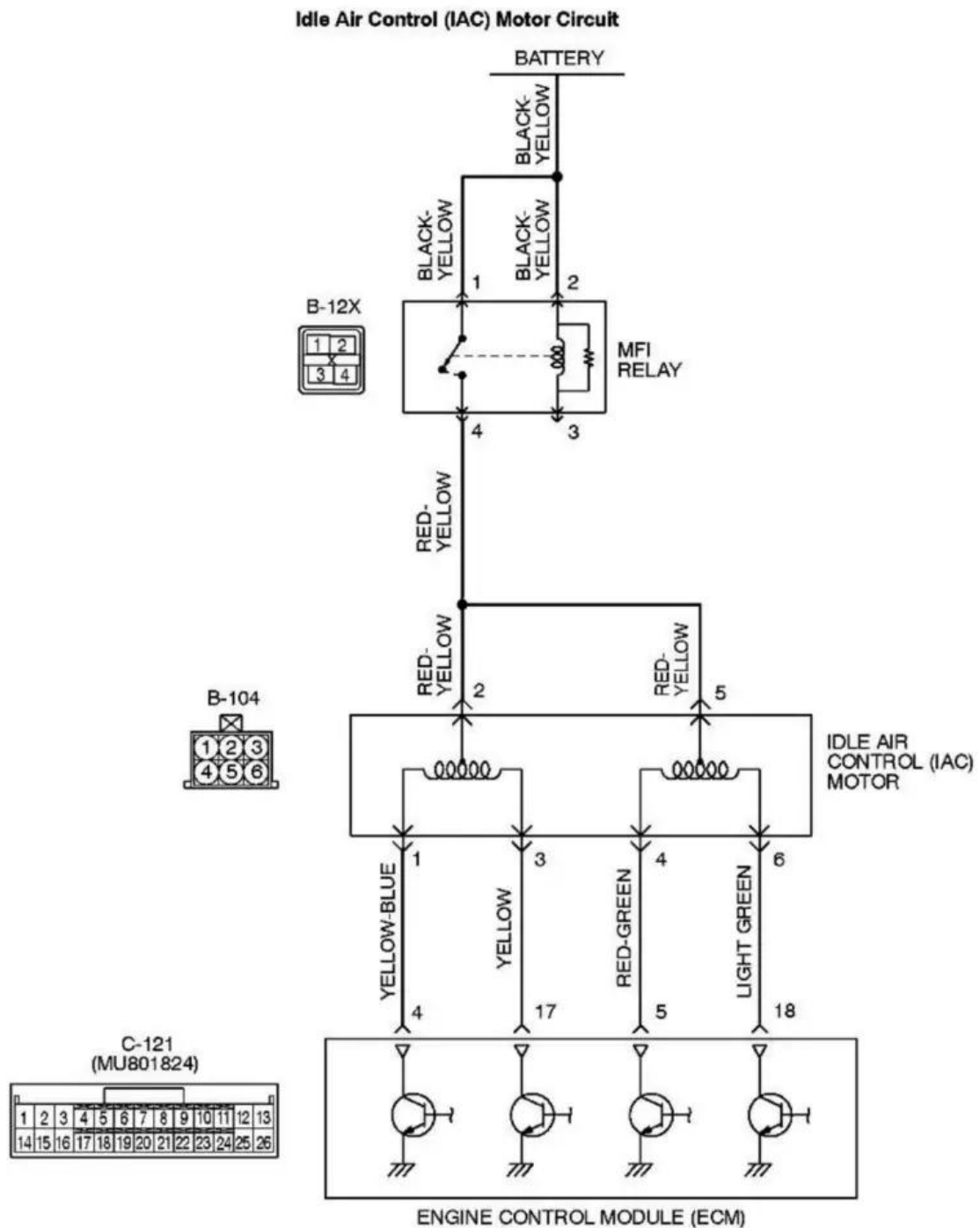
Severity	:	<div><div>High</div></div>
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$120-\$500
Can I Still Drive?	:	Yes (Short-term only)

What Does The P0507 Code Mean?

This diagnostic trouble code (DTC) is a generic powertrain code, which means that it applies to OBD-II equipped vehicles. Although generic, the specific repair steps may vary depending on make/model. Accidentally, this code seems to be more commonly found on Chevrolet, VW, Nissan, Audi, Hyundai, Honda, Mazda and Jeep vehicles.

This P0507 code is one that's sometimes triggered on vehicles that have electronic throttle control. That is, they don't have a regular throttle cable from the accelerator pedal to the engine. They rely on sensors and electronics to control the throttle.

In this case, the P0507 DTC (diagnostic trouble code) is triggered when the PCM (powertrain control module) detects an engine idle speed that is greater than the desired (pre-programmed) RPM. In the case of GM vehicles (and possibly others) if the idle speed is over 200 rpm higher than expected, this code will be set.



P0507 wiring diagram

What Are The Symptoms Of The P0507 Code?

Most likely you'll notice the idle speed is higher than normal. There are potentially other symptoms as well. Of course, when trouble codes are set, the MIL (malfunction indicator lamp, a.k.a. the check engine light) illuminates.

What Are The Potential Causes Of The P0507 Code?

A P0507 DTC trouble code may be caused by one or more of the following:

- A vacuum leak
- Leaking air intake after the throttle body
- EGR valve leaking vacuum
- A faulty positive crankcase ventilation (PCV) valve
- Damaged/failed/dirty throttle body
- Failed EVAP system
- Failed IAC (idle air controller) or faulty IAC circuit

How Can You Fix The P0507 Code?

This DTC is more of an informational code, so if there are any other codes set, diagnose them first. If there are no other codes, inspect the intake air system for air or vacuum leaks and damage. If there are no symptoms other than the DTC itself, just clear the code and see whether it returns.

If you have an advanced scan tool that can interact with the car, command the idle higher and lower to see if the engine responds appropriately. Also check the PCV valve to see if it's blocked and needs to be replaced. Check the IAC (idle air controller) if equipped, verify it's operation. If available, try swapping in a new throttle body to see if that fixes the problem. On Nissan Altimas and possibly other vehicles the problem may be fixed by having the dealer perform an idle air relearn procedure, or other relearn procedures.

Reference Sources

[Diagnostic Trouble Code \(DTC\) Charts and Descriptions for P0507](#) - Page 81.