

GENERIC · POWERTRAIN

P06EC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P06EC

Fuel Injector Control Module Requested MIL Illumination

P06EC means the fuel injector control module has sent a request to the engine control module to turn on the malfunction indicator lamp, usually because the injector module has detected an internal fault or a problem with its own power, ground, or communication circuits. The engine computer stores this code after receiving that illumination request over the vehicle network, so the actual fault lives in the injector control module or its wiring rather than in a single injector.

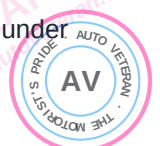
SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Computer and output circuits

Symptoms you may notice

- The malfunction indicator lamp is illuminated, often with no other warning lights or drivability complaints.
- The engine may enter a reduced-power or limp mode if the injector control module stops commanding one or more injectors.
- Rough running, misfiring, or a noticeable loss of power can appear if injector pulses are disrupted.
- Hard starting or an engine that stalls shortly after startup may occur when the injector module cannot maintain output control.
- A no-start condition is possible in severe cases where the injector control module shuts down completely.
- Often no symptoms besides the warning light, especially when the fault is an internal module request that has not yet affected injector operation.

Common causes, most likely first

- Internal fault within the fuel injector control module itself, such as a failed driver circuit or corrupted internal self-test.
- Poor or corroded power or ground connections at the injector control module, causing it to request the lamp as a protective measure.
- Damaged or chafed wiring in the communication bus between the injector control module and the engine control module.
- Low or unstable battery voltage that causes the injector control module to flag an internal supply fault.
- Water intrusion or connector corrosion at the injector control module harness, common on modules mounted low in the engine bay.
- A failed injector solenoid or shorted injector circuit that the module interprets as its own fault and reports via the lamp request.
- Software or calibration issues in the injector control module that trigger a false illumination request under specific operating conditions.



How to diagnose and fix it

- 1 Connect a scan tool and read all modules for stored and pending codes, then record freeze-frame data to see the conditions when P06EC set.
- 2 Inspect the injector control module connectors and harness for corrosion, water intrusion, chafing, and loose pins, repairing any damage found.
- 3 Test battery voltage and charging system output, as low voltage is a frequent trigger for module-internal fault requests.
- 4 Check the injector control module power and ground circuits with a multimeter under load, cleaning or repairing any high-resistance connections.
- 5 Verify communication bus integrity between the injector control module and the engine control module, looking for shorts or opens in the data lines.
- 6 If wiring and power supplies are sound, follow the manufacturer's diagnostic flow for the injector control module, which may include a module reset or reprogramming.
- 7 Replace the fuel injector control module only after all external circuits are proven good, then clear codes and verify the lamp request does not return.

What the lamp request really tells you

- P06EC is a request from the injector control module, not a direct command from the engine computer, so replacing the engine control module rarely fixes it.
- A weak or failing battery can cause this code without any injector fault, because the module flags its own low-voltage condition as a lamp request.
- Technicians often overlook corroded ground straps on the engine or chassis that raise resistance and make the injector module request the lamp intermittently.
- The code can set from a shorted injector circuit that the module protects itself against, so a single bad injector may be the root cause even though the code points at the module.
- Clearing the code without repairing the underlying supply or communication fault usually results in the lamp request returning within a few drive cycles.

Can I keep driving with P06EC?

You can usually drive the vehicle to a repair shop if the engine runs normally and only the warning light is on, but avoid heavy load or long trips because the injector control module could shut down injector output without warning. If the engine is misfiring, stalling, or in reduced-power mode, stop driving and have the vehicle towed to prevent damage to the catalytic converter.



Tools that help

- OBD-II scan tool with module-level reading capability
- Digital multimeter with min/max recording
- Wiring diagram and connector pinout for the injector control module
- Battery load tester and charging system tester
- Hand tools for connector and harness inspection

Reading P06EC

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
6	Computer and output circuits.
EC	The exact fault within that area.

Often seen with

P0200 Injector Circuit Malfunction · **P06E8** Sensor Power Supply C Circuit High · **P06E9** Engine Starter Performance · **P06EA** NOx Sensor Processor Performance Bank 1 Sensor 1 · **P06EB** NOx Sensor Processor Performance Bank 1 Sensor 2

See it working

Watch the animated explainer [How an Oxygen Sensor Works: Live 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06ec/>

