

GENERIC · POWERTRAIN

P0612

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0612

Fuel Injector Control Module Relay Control

P0612 indicates that the powertrain control module (PCM) has detected a fault in the control circuit for the fuel injector control module relay, which is the relay that supplies power to the fuel injector driver module. The PCM monitors the relay control circuit for expected voltage changes when the relay is commanded on or off, and it sets this code when the circuit does not respond as expected, indicating an open, short, or relay coil failure.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) with no other obvious symptoms
- Engine may crank but fail to start or stall immediately after starting
- Rough running or misfiring if the relay intermittently cuts power to the injector control module
- Intermittent no-start condition that may be temperature or vibration sensitive
- Otherwise normal engine operation if the fault is only in the relay control circuit and the relay still closes

Common causes, most likely first

- 1 Failed fuel injector control module relay (open or shorted coil, burned contacts)
- 2 Open or shorted wire in the relay control circuit between the PCM and the relay
- 3 Corroded or loose electrical connectors at the relay, PCM, or inline harness connectors
- 4 Blown fuse or poor connection in the relay power supply circuit (including the fuse box)
- 5 Faulty powertrain control module (PCM) driver circuit for the relay control
- 6 Aftermarket alarm or remote start installation tapping into the relay control wiring

How to diagnose and fix it

- 1 Verify the battery is fully charged and inspect the relay and PCM connectors for corrosion or looseness
- 2 Check all fuses related to the fuel injector control module relay and replace any that are blown
- 3 Swap the fuel injector control module relay with an identical known-good relay and clear the code to see if it returns
- 4 Use a digital multimeter to check for battery voltage at the relay coil and switch terminals with the key on and during cranking
- 5 Perform a voltage drop test on the relay control circuit from the PCM to the relay to find excessive resistance
- 6 Back-probe the PCM connector and command the relay on with a scan tool to verify the PCM driver is functioning
- 7 Repair or replace any damaged wiring, terminals, or the PCM if the driver circuit is confirmed faulty



Relay control circuit faults often misdiagnosed

- A failed fuel injector control module relay can cause a no-start with no other codes, leading technicians to replace the fuel pump or injectors unnecessarily.
- The relay control circuit is often damaged by rodents chewing wires or by improper installation of aftermarket electronics, so always inspect the harness routing.
- Some vehicles use a solid-state relay or a module integrated into the underhood fuse box, so the 'relay' may not be a simple plug-in component.
- P0612 can be set by a low battery or charging system fault that causes the PCM to see an unexpected voltage on the control circuit during cranking.
- A scan tool that can command the relay on and off is essential; without it, you may misdiagnose a PCM driver fault when the real problem is a wiring issue.

Can I keep driving with P0612?

If the engine starts and runs normally, you can drive the vehicle to a repair shop, but avoid long trips or heavy loads because the relay could fail completely and cause a stall. If the engine cranks but does not start, do not continue cranking; have the vehicle towed to prevent starter damage and further diagnostics.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter (DMM)
- Test light
- Wire piercing probes or back-probe kit
- Relay puller or small flathead screwdriver
- Vehicle-specific wiring diagram

Reading P0612

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.

12 The exact fault within that area.

Often seen with

P0613 TCM Processor · **P0614** ECM / TCM Incompatible · **P0685** ECM/PCM Power Relay Control Circuit Open · **P0686** ECM/PCM Power Relay Control Circuit Low · **P0687** ECM/PCM Power Relay Control Circuit High



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0612/>

