

GENERIC · POWERTRAIN

P02FF

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P02FF

Propulsion System Inactive Timer Performance

P02FF indicates that the powertrain control module (PCM) has detected a performance fault in the propulsion system inactive timer, which tracks how long the vehicle has been powered down between drive cycles. The PCM expects this timer to increment consistently when the ignition is off, and it sets the code when the timer value is implausible, does not advance, or resets unexpectedly.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) with no other noticeable symptoms
- Remote start or scheduled climate features may fail to activate
- The vehicle may not enter sleep mode, causing a parasitic battery drain
- Incorrect or missing timestamps in freeze-frame data and onboard diagnostics
- Intermittent no-start conditions if the timer fault affects immobilizer synchronization

Common causes, most likely first

- 1 Weak or failing 12-volt battery that causes voltage drops during cranking or key-off periods
- 2 Corroded, loose, or damaged battery terminal connections and ground straps
- 3 Faulty ignition switch or push-button start circuit that does not properly signal key-off
- 4 PCM software defect or internal timer counter error requiring reflash or replacement
- 5 Wiring harness damage (opens, shorts, or chafing) between the PCM and power supply
- 6 Aftermarket accessories (alarms, dash cams, telematics) wired to constant power that interfere with module sleep
- 7 A defective body control module (BCM) or gateway module that fails to broadcast the correct power mode



How to diagnose and fix it

- 1 Perform a battery load test and check charging system output; replace the battery if it fails
- 2 Inspect and clean battery terminals, ground connections, and engine-to-chassis ground straps
- 3 Scan all modules for related codes and check freeze-frame data to see when the timer fault occurred
- 4 Verify ignition switch or start button operation with a scan tool to confirm proper power mode transitions
- 5 Check for aftermarket accessories wired to constant power and disconnect them temporarily to see if the code returns
- 6 Perform a voltage drop test on the PCM power and ground circuits while cranking and during key-off
- 7 If all else checks out, reprogram the PCM with the latest software or replace it if the internal timer is confirmed faulty

Timer faults often trace to the battery

- A weak battery that still starts the engine can cause the PCM to lose track of time during cranking, setting P02FF without any other symptoms.
Aftermarket alarms or dash cams wired to constant power can keep modules awake and prevent the inactive timer from incrementing correctly.
- The code does not always mean the PCM is bad; voltage drops from corroded grounds are a far more common root cause.
- Some vehicles use the inactive timer for emissions readiness and remote start logic, so a fault can disable those features even when the engine runs fine.
A scan tool that can display power mode and timer values is essential; guessing leads to unnecessary PCM replacement.

Can I keep driving with P02FF?

The vehicle is generally safe to drive because P02FF does not affect engine operation or safety systems, but address it soon to avoid a no-start condition or battery drain. Avoid relying on remote start or scheduled climate features until the fault is repaired.

Tools that help

- OBD-II scan tool with live data and power mode capabilities
- Digital multimeter for voltage and resistance checks
- Battery load tester
- Test light or logic probe
- Socket set and terminal cleaning brush



Reading P02FF

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- FF** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0606** PCM Processor Fault · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [How a Rotary Engine Works: Wankel in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p02ff/>

