

FORD · POWERTRAIN

P1197

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1197 · Ford

Key Off Voltage Low

P1197 on Ford vehicles means the powertrain control module (PCM) measured battery voltage below its expected threshold during the key-off self-test or keep-alive memory period. The PCM logs this code when the voltage it sees at its power input drops too low while the ignition is off, which can point to a weak battery, parasitic drain, or a wiring fault rather than a running-engine problem.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, because the fault occurs when the engine is not running
- Slow cranking or a battery that goes flat overnight or after sitting for a day or two
- Intermittent no-start condition, especially after the vehicle has been parked for an extended period
- Electrical accessories behaving erratically or dimming when the key is turned to the run position
- A battery warning light or charging system message appearing alongside the check engine light
- Remote keyless entry or memory settings resetting because keep-alive power was interrupted

Common causes, most likely first

- 1 Aged or failing battery that cannot hold voltage under light key-off loads
- 2 Parasitic drain from a module that fails to go to sleep, such as the body control module (BCM) or an aftermarket accessory
- 3 Corroded, loose, or damaged battery cables and terminals causing voltage drop at the PCM power feed
- 4 A faulty PCM power relay or ignition switch circuit that interrupts keep-alive voltage
- 5 Chafed or grounded wiring in the PCM power or ground circuits
- 6 A weak or failing alternator that leaves the battery undercharged after short trips
- 7 A defective PCM with an internal voltage reference fault, which is the least common cause



How to diagnose and fix it

- 1 Perform a battery load test and a charging system check to confirm the battery and alternator are healthy
- 2 Inspect and clean battery terminals and cable ends, then check for voltage drop across the positive and ground cables
- 3 Measure key-off parasitic drain with a clamp meter or multimeter and compare it to Ford's specification for the vehicle
- 4 Isolate the parasitic drain by pulling fuses one at a time or using a power distribution chart to find the circuit that keeps drawing current
- 5 Check the PCM power relay, fuses, and the key-off power feed at the PCM connector for correct voltage
- 6 Inspect the PCM ground points and the harness for chafing, corrosion, or loose pins that could drop voltage
- 7 Clear the code and verify the repair by monitoring key-off voltage over a soak period before returning the vehicle

Key-off voltage faults that fool technicians

- A battery that passes a standard load test can still fail this code if its reserve capacity has dropped and it cannot maintain voltage during a long key-off soak.
- Aftermarket accessories wired to constant power, such as dash cams or trackers, are a frequent cause of parasitic drain that sets P1197 on Ford vehicles.
- The PCM may set P1197 from a brief voltage dip during a battery replacement or jump-start, so the code should be cleared and rechecked before any parts are replaced.
- A failing body control module that stays awake can drain the battery and trigger P1197 even though the PCM itself is working correctly.
- Corrosion inside a battery cable can create enough voltage drop to set this code while the terminals look clean on the outside.

Can I keep driving with P1197?

You can usually drive the vehicle short distances, but avoid leaving it parked for long periods until the fault is repaired because the battery may go flat and leave you stranded. Address the issue promptly if you notice slow cranking or repeated no-start conditions.

Tools that help

- Digital multimeter
- Battery load tester
- Clamp meter for parasitic drain measurement
- Fuse puller and Ford wiring diagrams
- Scan tool capable of reading Ford-specific codes



Reading P1197

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 1** Fuel and air metering.
- 97** The exact fault within that area.

Often seen with

P1196 Oxygen Sensor Heater Circuit Bank 1 Sensor 1 Electrical Malf · **P1196** Ignition Switch Start Circuit · **P1196** Ignition Switch Start Circuit Fault · **P1196** O2 Sensor Heater Circuit Low Resistance Fault 2 · **P1196** O2 Sensor 2/1 (Bank 2 Sensor 1) Slow During Catalyst Monitor · **P1196** Key Off Voltage High · **P1196** O2 Sensor 2/1 (Bank 2 Sensor 1) Slow During Catalyst Monitor · **P0562** System Voltage Low · **P0563** System Voltage High · **P0620** Generator Control Circuit Malfunction · **U3003** Battery Voltage

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1197/>

