

FORD · POWERTRAIN

P1668

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1668 · Ford

PCM IDM Communications Error

P1668 on Ford vehicles means the powertrain control module (PCM) has lost or received invalid data from the injector drive module (IDM), which controls the fuel injectors on diesel engines. The PCM sets this code when it cannot establish reliable communication with the IDM over the dedicated data link, often due to wiring faults, power supply issues, or a failing module.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	High	Professional	Computer and output circuits

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Engine cranks but fails to start or starts with long cranking
- Rough running, misfire, or reduced power under load
- Stalling shortly after start-up or while driving
- Transmission may default to limp mode or shift harshly

Common causes, most likely first

- 1 Damaged or corroded wiring between the PCM and IDM, especially in the engine harness near hot or moving components
- 2 Poor electrical connections at the IDM or PCM connectors, including loose pins or water intrusion
- 3 Blown fuse or faulty relay supplying power to the IDM
- 4 Failed injector drive module (IDM) due to internal electronics failure
- 5 Failed powertrain control module (PCM) communication driver
- 6 Low battery voltage or poor grounds affecting module communication



How to diagnose and fix it

- 1 Verify battery voltage and condition, and check all grounds and fuses related to the IDM and PCM
- 2 Inspect the IDM and PCM connectors for corrosion, loose pins, or water damage, and clean or repair as needed
- 3 Perform a wiggle test on the harness between the PCM and IDM while monitoring live data for communication dropouts
- 4 Check continuity and resistance of the communication wires between the PCM and IDM, repairing any opens or shorts
- 5 Substitute a known-good IDM to see if communication is restored, confirming module failure
- 6 If wiring and power are good, test the PCM communication circuit or replace the PCM as a last resort
- 7 Clear the code and verify repair by running the engine and monitoring for code return

IDM Communication Faults Often Misdiagnosed

- A common oversight is replacing the IDM when the real fault is a chafed wire in the engine harness near the valve cover or exhaust, which only shows up when the engine is hot or vibrating.
- P1668 can be set by low battery voltage during cranking, so always load-test the battery and check charging system output before condemning any module.
- On some Ford diesel engines, the IDM shares power and ground with other circuits, so a blown fuse for an unrelated component can disable communication and set this code.
- The code does not always mean the IDM is dead; a failed PCM driver or a poor ground at the PCM can produce identical symptoms and the same code.
- After repairs, the code may remain in memory until a full drive cycle is completed, so do not assume the fix failed if the light stays on immediately after clearing.

Can I keep driving with P1668?

Do not continue driving with P1668 because the engine may stall unexpectedly or fail to restart, creating a safety risk. Have the vehicle towed to a repair facility for diagnosis, especially if drivability symptoms are present.

Tools that help

- OBD-II scan tool with Ford-specific software
- Digital multimeter
- Wiring diagram for the PCM and IDM circuits
- Test light or power probe
- Battery load tester



Reading P1668

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 6** Computer and output circuits.
- 68** The exact fault within that area.

Often seen with

P1667 Reverse Inhibit Solenoid Control Circuit · **P1669** ABS Unit Expected · **P1667** CI Circuit Malfunction · **P0600** Serial Communication Link Malfunction · **P0606** PCM Processor Fault · **U0105** Lost Communication With Fuel Injector Control Module

See it working

Watch the animated explainer [How a MAF Sensor Works: Hot-Wire Airflow Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1668/>

