

CHRYSLER · POWERTRAIN

P1214

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1214 · Chrysler

Injection Pump Timing Offset

P1214 on Chrysler vehicles means the engine computer has detected that the injection pump's internal timing offset is outside the range it expects for the commanded fuel delivery. The Powertrain Control Module (PCM) compares the pump's timing signal against the crankshaft and camshaft positions and flags this code when the offset cannot be reconciled, which usually points to a mechanical or electrical fault in the pump circuit rather than a simple sensor glitch.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

**Fuel and air
metering (injector
circuits)**

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms at first
- Rough idle or a noticeable stumble when the engine is cold
- Reduced power and poor fuel economy as the pump timing drifts further out
- Hard starting or extended cranking, especially on diesel models
- Excessive gray or black smoke from the tailpipe under acceleration
- Intermittent misfire or surging at steady cruise speeds

Common causes, most likely first

- 1 Worn or stretched injection pump timing chain or belt, causing the pump to fall out of phase with the crankshaft
- 2 Faulty injection pump timing solenoid or its internal advance piston sticking
- 3 Damaged or chafed wiring harness between the injection pump and the PCM
- 4 Corroded or loose electrical connector at the pump timing actuator
- 5 Failed crankshaft or camshaft position sensor sending an erratic reference signal
- 6 Internal wear in the injection pump causing the timing offset to exceed the PCM's correction range
- 7 PCM software calibration issue or a faulty PCM driver circuit for the timing solenoid



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1214, then clear the code and verify whether it returns immediately or only after a drive cycle
- 2 Inspect the injection pump wiring harness and connector pins for corrosion, chafing, or loose terminals, and repair any damage found
- 3 Check the timing chain or belt for stretch or skipped teeth using the manufacturer's timing marks, and replace it if out of specification
- 4 Test the injection pump timing solenoid resistance and compare it to the factory specification, replacing the solenoid if it is open or shorted
- 5 Verify crankshaft and camshaft position sensor signals with an oscilloscope to rule out a false reference before condemning the pump
- 6 Perform the manufacturer's injection pump timing offset relearn procedure with a capable scan tool after any pump or timing component replacement
- 7 If the offset remains out of range after electrical and timing checks, remove and bench-test the injection pump or replace it with a remanufactured unit

What the offset code really tells you

- A stretched timing chain is the most commonly missed cause of P1214 on high-mileage Chrysler diesel engines, and technicians often replace the pump before checking chain stretch.
- The code can set from a dirty or failing crankshaft position sensor because the PCM uses that signal as its timing reference, so a bad sensor mimics a bad pump.
- P1214 does not always mean the pump is mechanically failed; a corroded connector pin at the timing solenoid can produce the same offset error with a perfectly healthy pump.
- After replacing the pump or timing components, the PCM must complete a timing offset relearn, or the code will reset even though the repair was correct.
- Low fuel pressure or air in the fuel system can cause the pump to hunt for timing, setting P1214 as a secondary symptom rather than the root cause.

Can I keep driving with P1214?

You can usually drive the vehicle short distances to a shop, but avoid heavy acceleration, towing, or long highway trips because the pump timing offset can worsen and lead to hard starting or a no-start condition. If the engine begins to run very rough or lose power, stop driving and have it towed.



Tools that help

- OBD-II scan tool with manufacturer-specific Chrysler software and bidirectional control
- Digital multimeter for checking solenoid resistance and circuit continuity
- Oscilloscope for verifying crankshaft and camshaft sensor signals
- Factory service information for timing marks and offset relearn procedure
- Mechanical timing tools or timing chain stretch gauge
- Fuel pressure test gauge for ruling out low-pressure causes

Reading P1214

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Chrysler): its meaning depends on the make.

2 Fuel and air metering (injector circuits).

14 The exact fault within that area.

Often seen with

P1688 Metering Oil Pump Stepping Motor Cont Circuit · **P1688** Internal Fuel Injection Pump Controller Failure · **P1688** Internal Fuel Injection Pump Controller Failure · **P0216** Injector/Injection Timing Control Circuit · **P0251** Injection Pump Fuel Metering Control 'A' (Cam/Rotor/Injector · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1)

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1214/>

