

GENERIC · POWERTRAIN

P01DD

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P01DD

Cylinder 10 Injection Timing Performance - Over Retarded

P01DD indicates that the engine control module has detected the fuel injection timing for cylinder 10 is more retarded than the commanded value during operation. The computer compares the actual injection event timing to the desired timing and sets this code when the deviation exceeds a calibrated threshold.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially when the engine is cold
- Reduced engine power or sluggish acceleration
- Increased fuel consumption
- Occasional engine stumble or hesitation during acceleration
- Exhaust odor or black smoke in severe cases

Common causes, most likely first

- 1 Faulty or contaminated fuel injector for cylinder 10
- 2 Wiring harness damage or poor electrical connection at the cylinder 10 injector
- 3 Sticking or failing injection timing control solenoid (if equipped)
- 4 Engine control module software calibration issue or internal fault
- 5 Low fuel pressure or restricted fuel flow affecting injection timing
- 6 Mechanical wear in the high-pressure fuel pump or injection pump
- 7 Contaminated engine oil affecting variable valve timing or injection timing components



How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 10 injector connector and wiring for damage or corrosion
- 2 Check fuel pressure and verify it meets manufacturer specifications
- 3 Use a scan tool to command injector timing and observe actual versus desired timing values
- 4 Swap the cylinder 10 injector with a known-good injector from another cylinder to see if the code follows
- 5 Test the injection timing control solenoid or actuator for proper resistance and operation
- 6 Inspect and test the engine control module grounds and power supplies
- 7 Reprogram or replace the engine control module if all other components test good

Don't overlook injector wiring and fuel pressure

- A common oversight is assuming the injector itself is faulty when the real problem is a chafed wire in the harness near the cylinder 10 injector.
- Low fuel pressure from a weak pump can cause retarded injection timing without setting a fuel pressure code, so always verify pressure first.
- The code can be set by a software calibration issue in the engine control module, so check for technical service bulletins before replacing parts.
- Contaminated engine oil can affect variable valve timing systems that influence injection timing, so oil condition and change intervals matter.
- Swapping injectors between cylinders is a quick way to confirm whether the fault is the injector or the circuit, but clear the code and recheck after the swap.

Can I keep driving with P01DD?

You can usually continue driving with this code, but avoid heavy acceleration and towing until it is diagnosed. Prolonged driving with retarded injection timing can lead to increased emissions, fuel dilution of the oil, and potential damage to the catalytic converter.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Fuel pressure gauge
- Noid light or injector test light
- Hand tools for connector and component access



Reading P01DD

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

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P01D6** Cylinder 6 Injection Timing Performance - Over Advanced · **P01DA** Cylinder 8 Injection Timing Performance - Over Advanced · **P01DC** Cylinder 9 Injection Timing Performance - Over Advanced · **P0300** Random/Multiple Cylinder Misfire Detected

See it working

Watch the animated explainer **V6 Engine Explained: 60° Bank and Firing Order** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p01dd/>

