

P0022: "A" CAMSHAFT POSITION - TIMING OVER-RETARDED (BANK 2)

OVERVIEW

Severity	:	<div><div></div></div> High
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$35-\$450
Can I Still Drive?	:	Yes (Short-term only)

What Does The P0022 Code Mean?

A P0022 code refers to the VVT (variable valve timing) or VCT (variable camshaft timing) components and the car's PCM (powertrain control module) or ECM (engine control module). VVT is a technology used in the engine to allow it to get greater power or efficiency at different running points.

That consists of a few different components but the P0022 DTC specifically refers to the camshaft (cam) timing. In this case, if the cam timing is over-retarded, the engine light will be illuminated and the code will be set. The "A" camshaft is either the intake, left, or front camshaft.

What Are The Symptoms Of The P0022 Code?

Most likely a P0022DTC will result in one of the following:

- hard starting
- poor idle and/or
- stalling

There are potentially other symptoms as well. Of course, when trouble codes are set, the MIL (malfunction indicator lamp, a.k.a. the check engine light) illuminates.

What Are The Potential Causes Of The P0022 Code?

A P0022 DTC trouble code may be caused by one or more of the following:

- Incorrect camshaft timing
- Wiring problems (harness/wiring) in intake timing control valve control solenoid system
- Continuous oil flow to VCT piston chamber
- Failed timing valve control solenoid (stuck open)

How Can You Fix The P0022 Code?

The main thing to check is to verify the operation of the VCT solenoid. You're looking for a sticking or stuck VCT solenoid valve caused by contamination. Refer to vehicle specific repair manual to perform component tests for the VCT unit. Notes: Dealer techs have advanced tools and the ability to follow detailed troubleshooting steps, including the ability to test components using a scan tool.

Other related DTCs: [P0010](#)– [P0011](#)– [P0012](#)– [P0020](#)– [P0021](#)

Reference Sources

[Technical Service Bulletin for P0022](#)