

JAGUAR · POWERTRAIN

P1776

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1776 · Jaguar

Ignition Retard Request Duration

P1776 on Jaguar vehicles indicates the transmission control module (TCM) has detected that the ignition retard request duration from the engine control module (ECM) has exceeded the expected time window during gear shifts. The TCM monitors the timing of the retard signal to ensure smooth torque reduction, and this code sets when the signal stays active longer than calibrated.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Jaguar specific	Medium	Professional	Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Harsh or delayed gear shifts, particularly during upshifts
- A noticeable hesitation or stumble during acceleration
- Transmission may enter limp mode, limiting gear selection
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty ignition coil or spark plug causing abnormal combustion and extended retard requests
- 2 Wiring issue between the ECM and TCM, such as a chafed or shorted retard signal wire
- 3 Failing crankshaft position sensor or camshaft position sensor sending erratic signals
- 4 Sticking or faulty variable valve timing (VVT) solenoid affecting cam timing and retard behavior
- 5 Internal TCM fault misinterpreting the retard signal duration
- 6 Engine control module software calibration issue requiring an update

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurs
- 2 Inspect the wiring harness between the ECM and TCM for damage, corrosion, or loose connectors, and perform a wiggle test
- 3 Check ignition system components: spark plugs, coils, and their connectors for wear or misfire symptoms
- 4 Test the crankshaft and camshaft position sensors for signal integrity and resistance
- 5 Verify VVT solenoid operation and oil condition, as sludge can cause retard requests to linger
- 6 Check for technical service bulletins (TSBs) or software updates for the ECM/TCM calibration
- 7 If all else checks out, perform a pinpoint test for the retard signal circuit using a lab scope to measure pulse duration



What P1776 really points to on Jaguars

- A marginal ignition coil that hasn't yet set a misfire code can still cause extended retard requests, so coil testing under load is essential.
- The retard request duration is often a symptom of engine performance issues, not a transmission fault, so diagnose the engine first.
- Wiring harness chafing near the transmission bell housing is a common hidden cause on older Jaguar models.
- After repairs, the TCM adaptive strategy may need to be reset and relearned to prevent the code from returning.
- This code can be set by a low battery or poor ground connection causing voltage spikes that confuse the TCM.

Can I keep driving with P1776?

If the vehicle drives normally with only the warning light on, you can drive cautiously to a repair shop, but avoid aggressive acceleration or heavy loads. If the transmission is in limp mode or shifts harshly, stop driving and have it towed to prevent further damage.

Tools that help

- OBD-II scan tool with Jaguar-specific software
- Digital multimeter
- Oscilloscope for signal analysis
- Wiring diagram and breakout box
- Socket set and Torx bits for sensor removal

Reading P1776

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Jaguar): its meaning depends on the make.
7	Transmission.
76	The exact fault within that area.

Often seen with

P0011 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0012** 'A' Camshaft Position - Timing Over-Retarded (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected



See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1776/>

