



P1777 · Jaguar

Ignition Retard Request Circuit

P1777 on a Jaguar indicates that the engine control module (ECM) has detected a fault in the ignition retard request circuit, which is used to momentarily reduce ignition timing during gearshifts to smooth the torque transition. The ECM monitors the circuit for expected voltage or continuity and sets this code when the signal is out of range or missing.

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

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) on the instrument cluster.
- Harsh or jerky gearshifts, particularly during upshifts under light to moderate acceleration.
- A noticeable hesitation or stumble when the transmission changes gear.
- Reduced fuel economy due to the ECM reverting to a default ignition timing strategy.
- In some cases, the transmission may enter limp mode or exhibit delayed engagement.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Damaged or chafed wiring in the ignition retard request circuit, often near the transmission bellhousing or exhaust manifold.
- 2 Corroded or loose electrical connector at the transmission control module (TCM) or ECM.
- 3 Faulty transmission control module (TCM) internal driver for the retard request signal.
- 4 Failed engine control module (ECM) output driver for the ignition retard request circuit.
- 5 Open or shorted ignition retard request signal wire between the TCM and ECM.
- 6 Poor ground connection for the TCM or ECM, causing erratic signal voltage.
- 7 Aftermarket electronic modifications (e.g., piggyback tuners) interfering with the signal circuit.



How to diagnose and fix it

- 1 Connect a scan tool and verify P1777 is current or pending, then check for related codes in the TCM and ECM to confirm the circuit fault.
- 2 Inspect the wiring harness and connectors between the TCM and ECM for chafing, corrosion, or loose pins, especially in areas exposed to heat and vibration.
- 3 Perform a continuity and voltage drop test on the ignition retard request circuit according to Jaguar service information to isolate an open or short.
- 4 Check and clean the ground connections for the TCM and ECM, ensuring they are tight and free of corrosion.
- 5 If the wiring and connectors are good, substitute a known-good TCM and retest to see if the code clears and symptoms disappear.
- 6 If the TCM substitution does not resolve the issue, test or replace the ECM as the final step, following proper programming procedures.
- 7 After repair, clear the code and perform a road test with several gearshifts to confirm the fix and ensure no pending codes return.

Ignition Retard Circuit Misdiagnosis Traps

- A loose or corroded connector at the transmission control module is a frequent culprit that is often overlooked when technicians focus on the ECM side of the circuit.
- The ignition retard request signal is a low-current circuit, so a partially broken wire can pass a continuity test yet still fail under load, requiring a voltage drop test rather than a simple ohmmeter check.
- Aftermarket alarm systems or remote starters that tap into the CAN bus or ignition wiring can introduce noise or resistance that mimics a failed TCM or ECM.
- A failing crankshaft position sensor or camshaft position sensor can cause the ECM to request ignition retard for self-protection, setting P1777 as a secondary code even though the root cause is elsewhere.
- On some Jaguar models, the same circuit is shared with the traction control system, so a fault in the ABS module can trigger P1777 without any transmission symptoms.

Can I keep driving with P1777?

You can usually continue driving with P1777, but expect harsher gearshifts and slightly reduced fuel economy; avoid aggressive acceleration or towing until the fault is repaired to prevent additional stress on the transmission.

Tools that help

- Jaguar-specific scan tool or compatible OBD-II scanner with manufacturer-level access
- Digital multimeter with voltage drop and continuity functions
- Wiring diagram and service information for the specific Jaguar model
- Back probe pins and jumper wires for circuit testing
- Torx and trim removal tools for accessing the TCM and ECM connectors



Reading P1777

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

Often seen with

P1778 Solenoid EV7 Electrical Malfunction · **P1776** Torque Down Signal 2 Circuit · **P1776** Ignition Retard Request Duration · **P1778** Transmission Reverse IP Circuit · **P0700** Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0720** Output Speed Sensor Circuit Malfunction

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-p1777/>

