

GENERIC · POWERTRAIN

P06EE

OBD-II TROUBLE CODE

## P06EE

### Engine RPM Output Circuit High

P06EE indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the engine RPM output circuit, which is the signal the PCM sends to other modules such as the instrument cluster or transmission controller. The circuit is typically a dedicated wire that carries a pulsed signal proportional to engine speed, and a high voltage reading means the PCM sees the line stuck at or above its normal operating range.

| SYSTEM     | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA                         |
|------------|---------------------|----------|----------------|------------------------------|
| Powertrain | Generic (all makes) | Medium   | Professional   | Computer and output circuits |

### Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Tachometer may read zero, fluctuate erratically, or stay pegged at maximum
- Transmission may shift harshly or fail to shift because it relies on the RPM signal
- Engine may idle poorly or stall if the PCM uses the output signal for feedback control
- Other dashboard gauges or warning lights may behave strangely if the signal is shared
- In some vehicles, the engine may crank but not start due to a missing RPM signal to the ignition module

### Common causes, most likely first

- 1 Damaged or chafed wire in the engine RPM output circuit shorting to a higher voltage source
- 2 Corroded, loose, or disconnected electrical connector at the PCM or at the receiving module
- 3 Failed PCM driver circuit for the RPM output, often due to internal short or water intrusion
- 4 Faulty receiving module (such as the instrument cluster or transmission control module) pulling the signal voltage high
- 5 Aftermarket accessories or poor wiring repairs tapping into the RPM signal wire
- 6 Ground fault or missing ground at the PCM or receiving module causing reference voltage to rise



## How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for related codes in other modules; record freeze-frame data if available
- 2 Inspect the engine RPM output circuit wiring and connectors for damage, corrosion, or loose pins, especially near the PCM and the receiving module
- 3 Measure voltage on the RPM output circuit with a digital multimeter (DMM) with the key on and engine running, comparing to the manufacturer's specification
- 4 Disconnect the receiving module and recheck the voltage on the circuit to isolate whether the PCM or the receiving module is pulling the line high
- 5 Perform a wiggle test on the harness while monitoring the signal with a scan tool or oscilloscope to catch intermittent faults
- 6 If the PCM is suspected, check for power and ground integrity at the PCM and look for technical service bulletins (TSBs) before replacement
- 7 Replace the faulty PCM or receiving module only after confirming the circuit is intact and the fault is internal to the module

## What the RPM output circuit really does

- The engine RPM output circuit is often a dedicated square-wave signal, not a simple analog voltage, so a high-voltage fault can mean the signal is stuck at battery voltage rather than pulsing.
- A common misdiagnosis is replacing the instrument cluster when the actual fault is a shorted wire behind the engine block or a failed PCM driver.
- Some vehicles use a shared RPM signal between the PCM, instrument cluster, and transmission controller, so a fault in one module can set this code in the PCM even if the PCM is healthy.
- Aftermarket remote starters or alarm systems that tap into the tachometer wire are a frequent cause of this code because they can backfeed voltage onto the circuit.
- The code can set intermittently due to a loose ground at the PCM, which raises the reference voltage on the output driver and triggers the high-voltage threshold.

## Can I keep driving with P06EE?

If the only symptom is the check engine light and the vehicle runs normally, you can drive cautiously to a repair shop, but avoid towing heavy loads or aggressive acceleration. If the tachometer is dead, the transmission shifts poorly, or the engine stalls, stop driving and have the vehicle towed to prevent further damage or safety risk.



## Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter (DMM) with voltage and frequency measurement
- Oscilloscope for observing the RPM signal waveform
- Wiring diagram and connector pinout for the specific vehicle
- Back probe pins and jumper wires for testing connectors without damage
- Test light or load tester for checking circuit integrity

## Reading P06EE

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>6</b>  | Computer and output circuits.                                        |
| <b>EE</b> | The exact fault within that area.                                    |

## Often seen with

**P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P06ED** Engine RPM Output Circuit Low · **P06EF** Engine Restart Performance · **P0720** Output Speed Sensor Circuit Malfunction

## See it working

Watch the animated explainer [How an EGR Valve Works: Exhaust Gas Recirculation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06ee/>

