

GENERIC · POWERTRAIN

P2566

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2566

Turbocharger Boost Control Position Sensor Circuit Intermittent

P2566 indicates that the powertrain control module (PCM) has detected an intermittent fault in the circuit that reports the turbocharger boost control position sensor's signal. The sensor monitors the position of the variable geometry turbo (VGT) vanes or wastegate actuator, and the PCM sets this code when the signal momentarily drops out or becomes erratic, rather than failing completely.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Intermittent loss of boost pressure, causing a brief hesitation or lack of power during acceleration.
- Rough running or surging under load when the turbocharger boost control is inconsistent.
- Reduced fuel economy due to the PCM limiting boost or entering a default strategy.
- In some cases, the engine may enter limp mode if the intermittent fault triggers a more severe related code.

Common causes, most likely first

- 1 Wiring harness damage (chafed, corroded, or loose connector pins) at the boost control position sensor or along the circuit.
- 2 A failing boost control position sensor that produces an intermittent signal due to internal wear or heat damage.
- 3 Poor electrical connections at the sensor or PCM, often caused by water intrusion or vibration.
- 4 A sticking or binding turbocharger vane mechanism that causes the sensor to report erratic positions.
- 5 PCM software glitches or internal circuit faults, though these are less common.
- 6 Aftermarket modifications or poor previous repairs that introduce intermittent opens or shorts.



How to diagnose and fix it

- 1 Inspect the boost control position sensor connector and wiring for corrosion, loose pins, or chafing; repair as needed.
- 2 Perform a wiggle test on the harness while monitoring the sensor signal with a scan tool to identify intermittent opens.
- 3 Check the sensor's resistance and signal voltage against the manufacturer's specifications, replacing the sensor if out of range.
- 4 Verify that the turbocharger vane actuator moves freely and does not bind; clean or repair the mechanism if sticking.
- 5 Clear the code and test-drive the vehicle under various load conditions to confirm the repair.
- 6 If the fault persists, check for updated PCM software or consult a dealer for advanced diagnostics.

Intermittent Faults That Fool Many Techs

- A common misdiagnosis is replacing the boost control position sensor when the real problem is a chafed wire in the harness near the turbo, where heat and vibration are severe.
- Intermittent codes often do not set a pending code, so a scan tool that can graph the sensor signal in real time is essential for catching the glitch.
- The code can be triggered by a sticking turbo vane mechanism that momentarily jams, causing the sensor to report an impossible position; always check actuator movement.
- Some vehicles use a shared reference voltage for multiple sensors, so a fault in another sensor on the same circuit can cause this code to appear intermittently.
- After replacing a sensor, a relearn or calibration procedure may be required for the new sensor to be recognized properly, otherwise the code may return.

Can I keep driving with P2566?

You can generally continue driving with this code, but avoid heavy acceleration or towing until it is diagnosed, as intermittent boost loss can cause unpredictable performance and may worsen.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access
- Vacuum pump or actuator test tool (if applicable)



Reading P2566

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 66** The exact fault within that area.

Often seen with

P0046 Turbo/Super Charger Boost Control Solenoid Circuit Range/Per · **P0234** Engine Overboost Condition · **P2563** Turbocharger Boost Control Position Sensor Circuit Range/Per · **P2564** Turbocharger Boost Control Position Sensor Circuit Low · **P2565** Turbocharger Boost Control Position Sensor Circuit High

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2566/>

