

CHRYSLER · POWERTRAIN

P1393

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1393 · Chrysler

Wheel Speed Sensor 1, G-Sensor Circuit High Voltage

P1393 on a Chrysler vehicle means the powertrain control module (PCM) has detected an abnormally high voltage on the signal circuit of wheel speed sensor 1, which is also tied to the G-sensor (gravity/acceleration sensor) input on many Chrysler platforms. The computer expects a signal that toggles within a specific low-voltage window, and a sustained high reading tells it the circuit is open, shorted to voltage, or the sensor reference is skewed.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Anti-lock brake system (ABS) warning light illuminated on the dashboard
- Traction control or electronic stability control (ESC) warning light on, often with reduced power or disabled stability assist
- Speedometer fluctuation or dropout, especially at low speeds
- Erratic or premature ABS activation at low-speed braking
- Transmission shift harshness or delayed engagement on models that use wheel speed for shift scheduling
- Often no symptoms besides the warning light, with normal braking feel

Common causes, most likely first

- 1 Damaged or chafed wheel speed sensor harness at the hub, especially where it flexes with suspension travel
- 2 Corroded or pushed-back terminals in the wheel speed sensor connector or the ABS module connector
- 3 Failed wheel speed sensor with an internally open signal winding or contaminated tip
- 4 Excessive air gap between the sensor and tone ring caused by a worn hub bearing or damaged tone ring
- 5 Short to voltage on the signal circuit from a rubbed wire against a power feed or a failed ABS module driver
- 6 Failed ABS control module or PCM input circuit on integrated modules
- 7 Metal debris or a cracked tone ring producing an irregular signal the module interprets as high voltage



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1393, then clear and road-test to confirm the code returns
- 2 Visually inspect the suspect wheel speed sensor harness and connector for chafing, corrosion, and pushed pins
- 3 Measure sensor signal voltage and resistance at the connector and compare to the Chrysler service specification
- 4 Check the tone ring and hub bearing for play, cracks, or debris that would widen the air gap
- 5 Back-probe the signal circuit at the ABS module to rule out a short to voltage between the sensor and module
- 6 Replace the wheel speed sensor only after circuit and tone ring checks pass, then clear codes and verify with a live data road test
- 7 If the circuit and sensor are good, diagnose the ABS module or PCM input driver before condemning either unit

What P1393 Misleads Most Technicians About

- On many Chrysler platforms the G-sensor and wheel speed sensor 1 share a reference or signal path, so a fault logged as a G-sensor high voltage can actually originate at the wheel speed sensor harness.
- A wheel speed sensor that reads correctly with a meter can still set P1393 once the suspension flexes on the road, so a static ohm check alone is not conclusive.
- Debris stuck to the sensor tip or a cracked tone ring often produces a high-voltage signature that mimics a failed sensor, and replacing the sensor without cleaning the ring leaves the code returning.
- Corrosion inside the connector can add resistance that raises the signal voltage, and this is frequently missed when technicians only replace the sensor pigtail.
- P1393 does not always mean the ABS module is bad; a short to voltage on the signal wire from a rubbed harness is a far more common cause on higher-mileage Chrysler vehicles.

Can I keep driving with P1393?

The vehicle remains safe to drive at normal speeds because base hydraulic braking is unaffected, but avoid hard braking, towing, or slippery conditions until the fault is repaired since ABS and stability control may be disabled. If the speedometer is dropping out or the transmission is shifting harshly, keep the vehicle off the road and diagnose promptly.

Tools that help

- OBD-II scan tool with ABS and live data capability
- Digital multimeter with back-probe pins
- Chrysler service information for circuit and voltage specifications
- Jack and jack stands or a lift for wheel-end inspection
- Wire repair kit with heat-shrink butt connectors
- Feeler gauge for tone ring air gap measurement



Reading P1393

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Chrysler): its meaning depends on the make.
- 3** Ignition system and misfire.
- 93** The exact fault within that area.

Often seen with

P1392 CMP Sensor Bank 2 Open Circuit Short To B+ · **P1394** Ignition Coil Power Output Stage 2 Malfunction · **P1392** Variable Valve Timing Solenoid A Circuit Low Input · **P1392** Wheel Speed Sensor 1 G-Sensor Circuit Low Voltage · **P1394** Wheel Speed Sensor 1 G-Sensor Circuit Intermittent · **P1392** Glow Plug Circuit High Input Bank 1 · **P1394** Glow Plug Circuit High Input Bank 2 · **P1392** Wheel Speed Sensor 1, G-Sensor Circuit Low Voltage · **P1394** Wheel Speed Sensor 1, G-Sensor Circuit Intermittent · **C0035** Left Front Wheel Speed Sensor Circuit Range/Performance · **C0040** Left Rear Wheel Speed Sensor Circuit · **P0500** Vehicle Speed Sensor Malfunction

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1393/>

