



P1500 · Ford

Vehicle Speed Sensor Intermittent

P1500 on Ford vehicles means the powertrain control module (PCM) has detected an intermittent loss of the vehicle speed signal, typically from the vehicle speed sensor (VSS) or the anti-lock brake system (ABS) speed input. The PCM sets this code when the speed signal drops out or becomes erratic while the vehicle is moving, often logging it during specific driving conditions such as acceleration or steady cruise.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	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
- Speedometer needle fluctuating, dropping to zero, or reading incorrectly
- Erratic or harsh automatic transmission shifting due to missing speed input
- Cruise control disengaging or failing to engage
- ABS warning light may also illuminate if the ABS module is the signal source
- Poor fuel economy or stalling at low speeds in some cases

Common causes, most likely first

- 1 Faulty vehicle speed sensor (VSS) on the transmission or rear differential
- 2 Damaged or corroded wiring and connectors between the VSS and the PCM
- 3 Failed ABS wheel speed sensor or tone ring that supplies the speed signal on ABS-equipped Fords
- 4 Poor electrical ground for the VSS or PCM circuit
- 5 PCM software issue or internal fault, though less common
- 6 Aftermarket electronic accessories improperly tapped into the speed signal wire

How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data to confirm the speed signal dropout conditions
- 2 Inspect the VSS and its connector for physical damage, corrosion, or loose pins
- 3 Check the VSS resistance and AC voltage output while spinning the wheels or driving
- 4 Verify wiring continuity and ground integrity between the VSS, ABS module, and PCM
- 5 Inspect ABS wheel speed sensors and tone rings for debris, damage, or incorrect air gap
- 6 Repair or replace faulty sensors, wiring, or connectors as needed
- 7 Clear codes and perform a road test to verify the repair and ensure the code does not return



Speed signal sources vary by Ford model

- On many late-model Fords, the PCM receives vehicle speed from the ABS module rather than a dedicated transmission VSS, so a P1500 can be caused by a faulty wheel speed sensor or ABS issue.
- Intermittent VSS codes often appear only during specific conditions like rough roads or temperature extremes, making a simple static test insufficient for diagnosis.
- A failing speedometer head or instrument cluster can sometimes feed back into the speed signal circuit and set a P1500 without any sensor fault.
- Aftermarket stereo or navigation installations that tap into the speed signal wire are a common cause of intermittent P1500 codes on older Ford vehicles.
- The code may set without any driveability symptoms because the PCM can substitute a calculated speed from other inputs, masking the fault until conditions worsen.

Can I keep driving with P1500?

You can usually continue driving with a P1500 code, but avoid relying on cruise control and be aware that transmission shifting may become erratic or harsh. If the speedometer is dead or the ABS light is also on, have the vehicle inspected promptly to prevent unsafe driving conditions.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for voltage and resistance checks
- Jack and jack stands or a lift for wheel sensor inspection
- Wiring diagram for the specific Ford model
- Oscilloscope for waveform analysis of the speed signal (optional)

Reading P1500

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Ford): its meaning depends on the make.
5	Vehicle speed, idle control and auxiliary inputs.
00	The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **P0500** Vehicle Speed Sensor Malfunction · **P0501** Vehicle Speed Sensor Range/Performance · **P0502** Vehicle Speed Sensor Low Input · **P0720** Output Speed Sensor Circuit Malfunction



See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1500/>

