



C05F2

Rear Drive Shaft Speed Sensor Circuit Intermittent

C05F2 indicates that the rear driveshaft speed sensor circuit is sending an intermittent signal to the control module, meaning the computer sees the signal drop out or become erratic rather than failing completely. The module sets this code when the sensor's output does not match expected values for a brief but repeated period, often due to a loose connection or damaged wiring.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	Brakes, steering and suspension

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the fault is brief and the vehicle continues to drive normally
- Intermittent illumination of the ABS (Anti-lock Braking System) or traction control warning light
- Momentary activation of the stability control system or a brief loss of traction control assistance
- A slight shudder or hesitation during acceleration or deceleration if the signal drops under load
- Erratic speedometer readings or a speedometer that briefly drops to zero if the rear driveshaft speed signal is used for vehicle speed
- Transmission may shift harshly or hold gears if the rear driveshaft speed is used for shift scheduling

Common causes, most likely first

- 1 Loose or corroded electrical connector at the rear driveshaft speed sensor
- 2 Damaged or chafed wiring harness between the sensor and the control module, often near moving suspension components
- 3 Failing rear driveshaft speed sensor due to heat, debris, or mechanical wear
- 4 Metal debris or a damaged tone ring on the driveshaft causing an inconsistent signal
- 5 Poor ground connection for the sensor or control module
- 6 Internal fault in the control module, though this is less common



How to diagnose and fix it

- 1 Inspect the rear driveshaft speed sensor connector for looseness, corrosion, or pushed-back pins and clean or repair as needed
- 2 Trace the wiring harness from the sensor to the control module, looking for chafing, breaks, or heat damage, and repair any faults found
- 3 Check the sensor's mounting and air gap, and clean any metal debris from the sensor tip and tone ring
- 4 Measure the sensor's resistance and compare it to the manufacturer's specification, replacing the sensor if it is out of range
- 5 Use a scan tool to monitor live rear driveshaft speed data while wiggling the harness and driving over bumps to reproduce the intermittent fault
- 6 Perform a voltage drop test on the sensor's ground and power circuits to rule out high resistance connections
- 7 If all external checks pass, consult the factory diagnostic flow chart for the specific vehicle to test the control module and its internal circuits

Intermittent faults that fool good technicians

- A common oversight is replacing the speed sensor first when the real problem is a chafed wire hidden inside a loom near the rear axle, so always wiggle-test the harness before condemning the sensor.
- The code can be set by a damaged or dirty tone ring on the driveshaft, which is often overlooked because the sensor itself tests fine on a bench.
- Intermittent codes often appear only under specific conditions such as heavy load, rough roads, or temperature extremes, so a road test with a scan tool recording live data is more valuable than a static inspection.
- A weak battery or charging system can cause momentary voltage drops that mimic sensor faults, so verify battery and ground integrity before diving into sensor diagnostics.
- On some vehicles, the rear driveshaft speed signal is shared with the transmission control module, so a fault here can cause drivability symptoms that lead technicians to misdiagnose a transmission problem.

Can I keep driving with C05F2?

The vehicle is generally safe to drive with this code because the fault is intermittent and does not cause a complete loss of speed sensing, but avoid aggressive acceleration or towing until it is repaired. If the warning light stays on or multiple systems disable, have the vehicle inspected promptly to prevent a sudden loss of stability control assistance.



Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter for resistance and voltage measurements
- Wiring diagram or factory service information for the specific vehicle
- Jack and jack stands or a lift to access the rear driveshaft
- Contact cleaner and dielectric grease for connector repair
- Test light or jumper wires for circuit testing

Reading C05F2

C	Chassis: brakes, steering and suspension.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Brakes, steering and suspension.
F2	The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C05F1** Rear Drive Shaft Speed Sensor Circuit High · **C05F3** Rear Drive Shaft Speed Sensor Circuit · **P0500** Vehicle Speed Sensor Malfunction · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c05f2/>

