

GENERIC · BODY

B0220

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0220

Front Wiper Motor Speed Circuit

B0220 indicates that the body control module (BCM) has detected an abnormal condition in the front wiper motor speed circuit, which controls the wiper's high and low speed functions. The BCM monitors the circuit for expected voltage or current and sets this code when the signal is out of range, often due to an open, short, or faulty motor.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- The windshield wipers may not operate at all in one or both speed settings.
- Wipers may run only at one speed (e.g., high speed works but low speed does not).
- The wiper motor may run continuously without stopping or park incorrectly.
- A warning light may illuminate on the dashboard, though often no other symptoms are noticed besides the light.
- Intermittent wiper function may be lost or erratic.

Common causes, most likely first

- 1 Failed front wiper motor assembly (internal open or short in the speed control circuit).
- 2 Damaged or corroded wiring harness or connector at the wiper motor.
- 3 Blown fuse or faulty relay in the wiper motor circuit.
- 4 Faulty body control module (BCM) or wiper control module.
- 5 Poor ground connection for the wiper motor or BCM.
- 6 Sticking or binding wiper linkage causing excessive current draw and triggering the code.



How to diagnose and fix it

- 1 Check the wiper motor fuse and relay; replace if blown or faulty.
- 2 Inspect the wiring harness and connector at the wiper motor for corrosion, damage, or loose pins; clean or repair as needed.
- 3 Test the wiper motor directly by applying power and ground to verify operation; replace if it fails to run or runs poorly.
- 4 Measure resistance and voltage on the speed control circuit between the BCM and wiper motor to check for opens or shorts.
- 5 Verify the ground circuit for the wiper motor and BCM; clean and tighten grounds as necessary.
- 6 If all circuits and components test good, suspect the BCM; perform further diagnostics or reprogram/replace as required.
- 7 Clear the code and test wiper operation in all modes to confirm the repair.

Wiper Motor Speed Circuit Quirks

- A binding wiper linkage or frozen wiper blades can cause excessive current draw, leading to a B0220 code even when the motor itself is healthy.
- The BCM often sets this code if the wiper motor is unplugged or the battery is disconnected during service, so always check for a recent repair history.
- Some vehicles use a single wiper motor with internal limit switches; a faulty park switch can trigger speed circuit codes without affecting high-speed operation.
- Corrosion inside the wiper motor connector is a common missed cause, especially on vehicles exposed to road salt or heavy rain.
- After replacing the wiper motor, some BCMs require a recalibration or relearn procedure to recognize the new motor's position.

Can I keep driving with B0220?

You can usually drive the vehicle, but avoid operating the wipers if they are not functioning correctly, as this can impair visibility and safety. In rainy conditions, have the fault repaired promptly to maintain a clear windshield.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Socket set
- Wiring diagram for the wiper circuit



Reading B0220

- B** Body: airbags, seats, doors, lights and comfort systems.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Airbags, seats, doors, lights and comfort systems.
- 20** The exact fault within that area.

Often seen with

B0223 SRS Indicator Lamp Circuit Malfunction

See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0220/>

