

GENERIC · BODY

B0159

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0159

Outside Temperature Sensor Range/Performance

B0159 indicates the outside temperature sensor circuit is reporting a value outside the expected range or is not performing as designed, so the body control module (BCM) or climate control module cannot trust the reading. The computer compares the sensor signal against plausible limits and sets this code when the voltage or data falls outside those limits for a calibrated time.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- Outside temperature display shows dashes, a fixed default value, or an obviously wrong reading
- Climate control system blows air at the wrong temperature or fails to maintain selected settings
- Automatic headlights or wipers may behave erratically because they rely on ambient temperature data
- Remote start or battery management features may be disabled as a precaution
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Failed outside temperature sensor (thermistor) due to age, moisture intrusion, or physical damage
- 2 Damaged or corroded wiring harness between the sensor and the control module
- 3 Loose, corroded, or disconnected electrical connector at the sensor or module
- 4 Open or short circuit in the sensor signal or ground circuit
- 5 Faulty body control module (BCM) or climate control module, though this is less common
- 6 Software calibration issue in the module requiring a reflash or update



How to diagnose and fix it

- 1 Verify the fault is current by clearing the code and test-driving the vehicle while monitoring live data for the outside temperature parameter
- 2 Visually inspect the sensor, its connector, and the wiring harness for damage, corrosion, or loose pins
- 3 Measure the sensor resistance with a multimeter and compare it to the manufacturer's temperature-resistance chart
- 4 Check for reference voltage and ground at the sensor connector with the key on, engine off
- 5 Perform a wiggle test on the harness while watching live data to catch intermittent faults
- 6 If wiring and sensor test good, check for technical service bulletins (TSBs) or software updates for the control module
- 7 Replace the faulty sensor or repair the wiring as needed, then clear codes and verify the temperature reading is accurate

What the outside temperature sensor really affects

- A failed outside temperature sensor can disable automatic climate control, remote start, and even battery charging strategy on some vehicles, so the code is not just about a display reading.
- The sensor is often located behind the front bumper or in the grille area where it is exposed to road debris, moisture, and impact damage that may not be obvious during a quick visual check.
- A common misdiagnosis is replacing the sensor when the real problem is a chafed wire in the harness near the bumper or a corroded connector pin that only acts up in wet weather.
- Some vehicles use the outside temperature signal for engine cooling fan control or air conditioning compressor protection, so a faulty reading can cause secondary drivability or performance complaints.
- After replacing the sensor, some modules require a recalibration or a certain number of ignition cycles before the temperature display updates correctly, which can make a good repair appear unsuccessful.

Can I keep driving with B0159?

The vehicle remains safe to drive because this fault primarily affects comfort and convenience features, but avoid relying on automatic climate control or remote start until it is repaired. If the temperature display is used for freeze warnings, do not depend on it to alert you to icy road conditions.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Temperature-resistance chart for the sensor (from service information)
- Wire terminal removal tools
- Heat gun or cold spray for temperature simulation (optional)



Reading B0159

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

Often seen with

B0158 Ambient Air Temperature Sensor Circuit · **B0160** In-Vehicle Temperature Sensor Circuit · **P0071** Ambient Air Temperature Sensor Range/Performance · **P0072** Ambient Air Temperature Sensor Circuit Low

See it working

Watch the animated explainer [Helicopter Simulator: Take Off, Hover and Land](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0159/>

