



P0A17

Motor Torque Sensor Circuit

P0A17 indicates that the hybrid or electric vehicle control module has detected an abnormal signal from the motor torque sensor circuit, which measures the actual torque output of the electric drive motor. The computer compares this signal against expected values from other sensors and sets the code when the voltage, current, or rationality check falls outside the programmed limits.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning light
- Reduced power or limp mode, often limiting vehicle speed
- Hesitation or shudder during acceleration or regenerative braking
- Unexpected changes in regenerative braking feel or strength
- Often no symptoms besides the warning light, especially in early stages

Common causes, most likely first

- 1 Faulty motor torque sensor or its internal circuitry
- 2 Damaged, corroded, or loose wiring and connectors in the torque sensor circuit
- 3 Poor electrical ground connection for the sensor or control module
- 4 Failed or failing hybrid control module or inverter assembly
- 5 Mechanical binding or damage in the motor or transaxle affecting sensor readings
- 6 Software calibration issue in the hybrid control module requiring reprogramming

How to diagnose and fix it

- 1 Perform a thorough visual inspection of the torque sensor wiring harness and connectors for chafing, corrosion, or loose pins
- 2 Check and clean all ground connections related to the hybrid system and torque sensor circuit
- 3 Use a scan tool to read live data from the motor torque sensor and compare it to manufacturer specifications
- 4 Measure resistance and voltage on the sensor signal and reference circuits with a digital multimeter, following the factory wiring diagram
- 5 If the sensor is accessible, test its output directly and replace it if out of specification
- 6 Check for technical service bulletins or software updates for the hybrid control module and reprogram if applicable
- 7 If all external checks pass, diagnose the hybrid control module and inverter assembly for internal faults



Torque sensor faults that mimic other issues

- A weak or corroded ground can cause the torque sensor signal to drift, setting P0A17 without any sensor failure, so always verify grounds before condemning parts.
- The code can be set by a mechanical problem such as a binding motor bearing or damaged reduction gear, which corrupts the torque reading even when the sensor and wiring are perfect.
- Some vehicles require a relearn or calibration procedure after replacing the torque sensor or control module, and skipping it will cause the code to return immediately.
- Intermittent P0A17 codes often trace to a pin that is loose inside a connector but looks fine visually, so a wiggle test with live data displayed is more reliable than a static inspection.
- A low 12-volt battery or charging system fault can cause the hybrid control module to misread sensor inputs, so check system voltage before diving into the torque sensor circuit.

Can I keep driving with P0A17?

Do not continue driving with P0A17 active, because the vehicle may enter limp mode without warning and lose power unexpectedly. Have the vehicle towed to a qualified hybrid repair facility for diagnosis.

Tools that help

- Hybrid-capable scan tool with live data and graphing
- Digital multimeter with min/max recording
- Factory service information and wiring diagrams
- Insulated hand tools and personal protective equipment for hybrid high-voltage safety

Reading P0A17

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
17	The exact fault within that area.

Often seen with

P0A0F Engine Failed to Start · **P0A18** Motor Torque Sensor Circuit Range/Performance · **P0A19** Motor Torque Sensor Circuit Low · **P0A1A** Generator Control Module · **P0A3F** Drive Motor A Position Sensor Circuit



See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0a17/>

