

GENERIC · POWERTRAIN

P0B09

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B09

Electric/Auxiliary Transmission Fluid Pump A Motor Supply Voltage Circuit/Open

P0B09 indicates that the transmission control module (TCM) has detected an open circuit or supply voltage fault on the motor feed for the electric auxiliary transmission fluid pump, often called pump A. This pump maintains fluid pressure when the engine is stopped during auto start-stop events or when the vehicle is in electric-only mode, so the circuit is critical for smooth hybrid and start-stop operation.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or service transmission warning, often with no other symptoms besides the warning light
- Harsh or delayed engagement when accelerating from a stop after an auto start-stop event
- The engine may refuse to enter auto start-stop mode or may restart abruptly
- Transmission may enter limp mode with reduced power or limited gear selection
- In hybrid vehicles, the vehicle may fail to move in electric-only mode or may show a hybrid system fault
- Intermittent loss of transmission pressure causing shudder or slip during low-speed maneuvers

Common causes, most likely first

- 1 Open or damaged wire in the motor supply circuit between the TCM and the auxiliary pump
- 2 Corroded, loose, or disconnected electrical connector at the auxiliary pump or TCM
- 3 Blown fuse or faulty relay supplying power to the auxiliary transmission pump motor
- 4 Failed auxiliary transmission fluid pump motor (open winding or internal fault)
- 5 Faulty transmission control module (TCM) not supplying the correct voltage
- 6 Poor ground connection for the auxiliary pump circuit
- 7 Aftermarket wiring or accessory installation interfering with the pump supply circuit



How to diagnose and fix it

- 1 Verify battery voltage and inspect the fuse and relay for the auxiliary transmission pump circuit
- 2 Visually inspect the pump connector and wiring harness for corrosion, chafing, or loose pins
- 3 Disconnect the pump and measure resistance across the motor terminals to check for an open winding
- 4 Backprobe the supply wire at the pump connector and check for battery voltage with the key on and during a commanded pump activation
- 5 Perform a voltage drop test on both the power and ground sides of the circuit under load
- 6 If voltage is present at the pump but the pump does not run, replace the auxiliary transmission fluid pump
- 7 If voltage is absent, trace the circuit back to the TCM and repair any open or high-resistance wiring before condemning the TCM

Before condemning the auxiliary transmission pump

- A blown fuse for the auxiliary pump is often caused by a shorted pump motor, so replacing the fuse without checking the motor will lead to a repeat failure.
The TCM may set P0B09 if the pump circuit is intact but the TCM's internal driver has failed, so always verify power and ground at the pump before replacing the module.
- On many vehicles, the auxiliary pump only runs during auto start-stop events, so a fault may not appear during a routine scan unless the technician commands the pump on with a bidirectional scan tool.
- Corrosion inside the pump connector is a common cause that is easily missed because the outside of the connector looks clean; disconnecting and inspecting the pins is essential.
A weak or failing battery can cause voltage drops that trigger P0B09 during start-stop events, so load-test the battery before chasing wiring faults.

Can I keep driving with P0B09?

You can usually drive the vehicle to a repair shop, but avoid relying on auto start-stop or electric-only mode and expect possible harsh engagement or limp mode. If the transmission slips severely or the vehicle refuses to move, stop driving and have it towed.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Test light
- Wire repair kit with crimpers and heat shrink
- Fuse puller and relay tester
- Vehicle-specific wiring diagram



Reading P0B09

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

Often seen with

P0A94 DC/DC Converter A Performance · **P0B08** Electric/Auxiliary Transmission Fluid Pump Motor Phase W Cur · **P0B0A** Electric/Auxiliary Transmission Fluid Pump A Motor Supply Vo · **P0B0B** Electric/Auxiliary Transmission Fluid Pump A Motor Supply Vo · **P0B0C** Electric/Auxiliary Transmission Fluid Pump A Hydraulic Leaka

See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0b09/>

