

GENERIC · POWERTRAIN

P0990

OBD-II TROUBLE CODE

P0990

Transmission Fluid Pressure Sensor/Switch 'E' Circuit High

P0990 indicates that the transmission control module (TCM) has detected an abnormally high voltage on the circuit for transmission fluid pressure sensor or switch 'E'. This sensor monitors hydraulic pressure inside the transmission, and a high signal typically means the circuit is open, shorted to voltage, or the sensor itself has failed.

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

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Harsh or delayed gear shifts
- Transmission may enter limp mode (stuck in one gear)
- Slipping or flaring during acceleration
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Faulty transmission fluid pressure sensor/switch 'E'
- 2 Open or shorted wiring in the sensor circuit
- 3 Corroded or loose electrical connector at the sensor
- 4 Low transmission fluid level or contaminated fluid
- 5 Internal transmission mechanical issue causing abnormal pressure
- 6 Faulty transmission control module (TCM) or powertrain control module (PCM)

How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace fluid if needed
- 2 Inspect the sensor and its connector for damage, corrosion, or loose pins
- 3 Perform a voltage drop test on the sensor circuit to check for opens or shorts
- 4 Test the sensor with a multimeter according to manufacturer specifications
- 5 Replace the sensor/switch 'E' if it fails testing
- 6 Repair or replace damaged wiring or connectors
- 7 Clear the code and perform a road test to verify the repair



Don't overlook the simple checks first

- A low transmission fluid level can cause pressure fluctuations that mimic a sensor failure, so always verify fluid level and condition before condemning the sensor.
- Corroded connectors are a frequent culprit, especially in areas with road salt or high humidity, and can cause high voltage readings without any sensor fault.
- The code may set intermittently due to a loose ground connection, so inspect and clean ground points related to the transmission.
- Replacing the sensor without checking the circuit can lead to a repeat failure if the underlying wiring issue is not addressed.
- Some vehicles use a pressure switch instead of a sensor, and a stuck-open switch can produce the same high voltage code.

Can I keep driving with P0990?

It is generally safe to drive with this code, but avoid aggressive acceleration or heavy loads because the transmission may shift erratically or enter limp mode. Have the vehicle diagnosed soon to prevent potential transmission damage.

Tools that help

- OBD-II scanner
- Digital multimeter
- Transmission fluid level dipstick or scan tool
- Socket set and wrenches
- Wire repair kit

Reading P0990

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

Often seen with

P0700 Transmission Control System Malfunction · **P0988** Transmission Fluid Pressure Sensor/Switch 'E' Circuit Range/ · **P0989** Transmission Fluid Pressure Sensor/Switch 'E' Circuit Low · **P0991** Transmission Fluid Pressure Sensor/Switch 'E' Circuit Interm · **P0992** Transmission Fluid Pressure Sensor/Switch 'F' Circuit



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/p0990/>

