

GENERIC · POWERTRAIN

P0613

OBD-II TROUBLE CODE

P0613

TCM Processor

P0613 indicates that the transmission control module (TCM) has detected an internal processor fault, meaning the computer that manages shifting and torque converter operation is not running its core logic correctly. The TCM sets this code when its self-test routines fail, often due to power supply problems, software corruption, or a failing module.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Computer and output circuits

Symptoms you may notice

- Illuminated check engine light or transmission warning light
- Transmission may default to limp mode, staying in one gear
- Harsh or delayed shifting
- No upshift or downshift response
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Low or unstable battery voltage to the TCM
- 2 Corroded or damaged wiring and connectors at the TCM
- 3 Internal TCM hardware failure
- 4 Corrupted TCM software or calibration
- 5 Poor ground connection for the TCM
- 6 Faulty ignition switch or power relay feeding the TCM

How to diagnose and fix it

- 1 Scan all modules for stored codes and record freeze-frame data
- 2 Check battery voltage and charging system output
- 3 Inspect TCM connectors and wiring for corrosion or damage
- 4 Verify powers and grounds at the TCM with a multimeter
- 5 Reprogram or update the TCM software if applicable
- 6 Replace and reprogram the TCM if internal fault is confirmed



Processor faults often start with voltage

- A weak battery or failing alternator can cause the TCM processor to set P0613 even though the module itself is healthy.
- Corroded ground connections at the transmission or chassis are a commonly overlooked cause of processor communication faults.
- Some vehicles require TCM replacement to be followed by relearn and adaptation procedures, or shifting problems will persist.
- P0613 can be stored intermittently by a momentary voltage dip during engine cranking, so always check for a history of low-voltage events.

Can I keep driving with P0613?

If the transmission is in limp mode or shifting erratically, avoid driving at highway speeds and seek service immediately; continuing to drive can cause further transmission damage.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Battery load tester
- Wiring diagram for the TCM circuit
- Terminal cleaning tools

Reading P0613

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

Often seen with

P0600 Serial Communication Link Malfunction · **P0601** Internal Control Module Memory Checksum Error · **P0602** Control Module Programming Error · **P0700** Transmission Control System Malfunction · **U0100** Lost Communication With ECM/PCM A



See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0613/>

