

SUZUKI · POWERTRAIN

P1600

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1600 · Suzuki

PCM TCM Serial Communication Circuit Fault

P1600 on Suzuki vehicles indicates that the Powertrain Control Module (PCM) has detected a communication fault on the serial data circuit that links it to the Transmission Control Module (TCM). The PCM expects a continuous exchange of data with the TCM, and when that signal is missing, intermittent, or corrupted, it stores this code and may command limited operation.

SYSTEM

Powertrain

CODE TYPE

Suzuki specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Computer and output circuits

Symptoms you may notice

- Illuminated Check Engine Light or Transmission Warning Light, often with no other symptoms
- Harsh or delayed transmission shifts, or the transmission stuck in a single gear (limp mode)
- Speedometer or gear position indicator behaving erratically or not working
- Engine may idle poorly or stall when coming to a stop
- No crank or intermittent no-start condition in some cases
- Reduced fuel economy or poor driveability due to default transmission strategy

Common causes, most likely first

- 1 Damaged, corroded, or loose wiring between the PCM and TCM connectors
- 2 Failed TCM, often due to internal circuit faults or water intrusion
- 3 Failed PCM, particularly a faulty serial communication driver inside the unit
- 4 Poor ground connection shared by the PCM or TCM, causing voltage reference shifts
- 5 Blown fuse or relay supplying power to the TCM or its communication circuit
- 6 Aftermarket electrical accessories or alarm systems tapping into the serial data line
- 7 Internal short in the serial data wiring harness, often from chafing or heat damage



How to diagnose and fix it

- 1 Inspect and clean the PCM and TCM connectors, checking for corrosion, bent pins, or loose terminals
- 2 Check all fuses and relays related to the TCM and PCM power supply, and verify battery voltage and ground integrity
- 3 Perform a wiggle test on the serial data wiring while watching live data for communication dropouts
- 4 Measure resistance and continuity on the serial communication circuit between PCM and TCM, comparing to factory specifications
- 5 Check for aftermarket accessories wired into the data circuit and disconnect them temporarily to see if the code returns
- 6 Substitute a known-good TCM or PCM (if available) to isolate which module is causing the communication failure
- 7 Repair or replace the faulty wiring harness section or the failed module, then clear codes and verify communication with a scan tool

What Suzuki techs check before replacing modules

- A weak or failing battery or poor ground can cause this code on Suzuki models because the TCM and PCM share a reference voltage that drops during cranking.
- Water intrusion into the TCM connector, often from a clogged cowl drain or damaged harness grommet, is a common hidden cause that visual inspection alone may miss.
- The code can set intermittently from a single communication glitch, so always check for stored freeze-frame data and perform a road test with live data before condemning a module.
- Aftermarket remote starters or alarm systems spliced into the serial data line frequently disrupt PCM-to-TCM communication and set P1600 without any hard wiring fault.
- On some Suzuki models, a failing alternator producing excessive AC ripple can corrupt serial data and trigger this code alongside charging system codes.

Can I keep driving with P1600?

You can usually drive the vehicle to a repair shop if it remains in limp mode and the engine runs, but avoid highway speeds or heavy loads because the transmission may not shift properly. If the vehicle stalls, refuses to start, or shifts erratically in traffic, stop driving and have it towed to prevent damage or an accident.

Tools that help

- OBD-II scan tool with live data and bidirectional communication capability
- Digital multimeter with resistance and continuity functions
- Wiring diagram for the specific Suzuki model and year
- Terminal pick and contact cleaner for connector inspection
- Oscilloscope for serial data signal analysis (optional but helpful)



Reading P1600

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Suzuki): its meaning depends on the make.
- 6** Computer and output circuits.
- 00** The exact fault within that area.

Often seen with

P1601 Powertrain Control Module Communication Line To TCM Error · **P1601** ECM Over-Temperature · **P0600** Serial Communication Link Malfunction · **P0700** Transmission Control System Malfunction · **U0100** Lost Communication With ECM/PCM A · **U0101** Lost Communication with TCM

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/suzuki-p1600/>

