



P1715 · Mitsubishi

Pulse Generator Assembly

P1715 on Mitsubishi vehicles indicates that the Transmission Control Module (TCM) has detected an abnormal signal from the pulse generator assembly, which is the input or output speed sensor inside the transmission. The TCM uses these pulses to calculate gear ratios and control shift timing, so when the signal is missing or erratic, the computer flags the circuit.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Mitsubishi specific	Medium	Intermediate	Transmission

Symptoms you may notice

- Check Engine Light or Transmission Warning Light illuminated on the dashboard
- Harsh or delayed shifting, often with a default to a single gear (limp mode)
- Speedometer fluctuation or failure if the affected sensor drives the speedometer signal
- Transmission may not downshift properly when coming to a stop
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Failed pulse generator (speed sensor) assembly inside the transmission
- 2 Damaged or corroded wiring harness connector at the sensor
- 3 Open or short circuit in the signal or ground wire between sensor and TCM
- 4 Metal debris or sludge buildup on the sensor tip, blocking the magnetic pickup
- 5 Internal transmission mechanical damage affecting the reluctor wheel or tone ring
- 6 Faulty TCM (less common, but possible after other causes are ruled out)

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm when the fault occurs
- 2 Visually inspect the pulse generator connector and wiring for corrosion, chafing, or loose pins
- 3 Measure the sensor resistance and compare to the manufacturer's specification; replace if out of range
- 4 Check the sensor signal with an oscilloscope or a scan tool that can graph input speed while driving
- 5 Remove the sensor and inspect the tip for metal shavings or damage; clean or replace as needed
- 6 Check the transmission fluid level and condition; contaminated fluid can affect sensor operation
- 7 If the circuit and sensor test good, perform a continuity and short-to-ground test on the signal wires back to the TCM



What Mitsubishi techs check before replacing the sensor

- A common oversight is assuming the sensor is bad when the real problem is a worn tone ring or reluctor wheel inside the transmission, which produces an erratic signal that mimics a faulty sensor.
- Intermittent P1715 codes often trace to a chafed wire near the transmission mount or a connector that wicks moisture, so wiggle-testing the harness while watching live data is more reliable than a static resistance check.
- On some Mitsubishi models, the pulse generator assembly shares a ground with other sensors, and a bad ground can set P1715 along with other codes; always check grounds before condemning the sensor.
- Debris on the sensor tip from normal clutch or gear wear can cause a weak signal without any mechanical failure, so cleaning the sensor and clearing the code is a valid first step before replacement.
- A failing TCM can intermittently drop the sensor signal, but this is rare; rule out all wiring and sensor issues first to avoid an expensive misdiagnosis.

Can I keep driving with P1715?

You can usually drive the vehicle to a repair shop, but expect harsh shifting or limp mode and avoid sustained highway speeds or heavy loads until the fault is repaired. If the transmission is stuck in a single gear or the speedometer has failed, limit driving to short, low-speed trips.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter
- Oscilloscope (for signal waveform analysis)
- Basic socket and wrench set
- Jack and jack stands or ramps for under-vehicle access

Reading P1715

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Mitsubishi): its meaning depends on the make.
7	Transmission.
15	The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0720** Output Speed Sensor Circuit Malfunction · **P0725** Engine Speed Input Circuit Malfunction · **P0730** Incorrect Gear Ratio



See it working

Watch the animated explainer **V6 Engine Explained: 60° Bank and Firing Order** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/mitsubishi-p1715/>

