

MITSUBISHI · POWERTRAIN

P1750

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1750 · Mitsubishi

Solenoid Assembly

P1750 on Mitsubishi vehicles indicates that the transmission control module (TCM) has detected an electrical fault in the solenoid assembly, which is the hydraulic control unit inside the automatic transmission. The TCM monitors the solenoid circuits for abnormal voltage or current and sets this code when the signal falls outside the expected range, often resulting in degraded shift quality or a default gear strategy.

SYSTEM

Powertrain

CODE TYPE

**Mitsubishi
specific**

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Harsh or delayed gear shifts, especially when cold
- Transmission stuck in a single gear or failsafe mode
- Slipping or flaring during acceleration
- Often no symptoms besides the warning light, particularly if the fault is intermittent

Common causes, most likely first

- 1 Faulty solenoid assembly internal to the transmission valve body
- 2 Damaged or corroded wiring harness connector at the transmission
- 3 Open or short circuit in the solenoid control wiring
- 4 Contaminated transmission fluid causing solenoid sticking
- 5 Failed transmission control module (TCM) driver circuit
- 6 Poor ground connection for the transmission electrical system

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes to confirm P1750 is the only transmission code
- 2 Inspect the transmission wiring harness and connector for corrosion, chafing, or loose pins
- 3 Check transmission fluid level and condition; service if contaminated or burnt
- 4 Measure resistance of the solenoid assembly at the connector and compare to factory specification
- 5 Perform a voltage drop test on the solenoid power and ground circuits under load
- 6 If electrical checks pass, remove the valve body and test the solenoid assembly directly
- 7 Replace the solenoid assembly or faulty wiring as needed, then clear codes and verify with a road test



What Mitsubishi techs check before replacing solenoids

- A loose or corroded ground strap between the transmission and chassis can mimic a failed solenoid assembly and set P1750 intermittently.
- Mitsubishi TCMs are sensitive to voltage spikes from a weak battery or alternator, so always verify charging system health before condemning the solenoid.
- Aftermarket transmission fluid that does not meet Mitsubishi's Diamond ATF SP-III specification can cause solenoid sticking and set this code without any electrical fault.
- The solenoid assembly on many Mitsubishi automatics is serviceable separately from the valve body, but the pan and valve body must be removed, making it a labor-intensive job.
- P1750 can be stored by a momentary glitch that does not affect driveability; clearing the code and performing an adaptive learning reset may resolve it without parts replacement.

Can I keep driving with P1750?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because the transmission may be in failsafe mode and shift harshly. If the transmission slips severely or refuses to engage a gear, stop driving and arrange a tow to prevent internal damage.

Tools that help

- OBD-II scan tool with Mitsubishi-specific software
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid temperature
- Socket set and torque wrench
- Factory service information for solenoid resistance specifications

Reading P1750

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

Often seen with

P1751 Power Supply Voltage High · **P1752** Power Supply Malfunction · **P1751** A/T Control Relay · **P1751** Transmission Shift Solenoid A Mechanical Fault · **P1752** Transmission Shift Solenoid A Circuit Shorted · **P1751** Shift Solenoid A Performance · **P1751** Secondary Pressure Solenoid Open Circuit · **P0700** Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0720** Output Speed Sensor Circuit Malfunction



See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/mitsubishi-p1750/>

