

MAZDA · POWERTRAIN

P1743

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1743 · Mazda

Torque Converter Clutch Failed On TCIL Is On

P1743 on Mazda vehicles means the powertrain control module (PCM) commanded the torque converter clutch (TCC) to engage, but the expected drop in engine speed did not occur, so the PCM flagged the clutch as failed while the Torque Converter Clutch Indicator Light (TCIL) is illuminated. The computer compares engine RPM to transmission input speed during lockup and stores this code when the two do not match closely enough.

SYSTEM

Powertrain

CODE TYPE

Mazda specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Torque Converter Clutch Indicator Light (TCIL) illuminated on the dashboard
- Often no symptoms besides the warning light, especially during light-throttle cruising
- Engine speed flares or surges when the converter should be locked, such as on a steady highway climb
- Poor fuel economy and slightly higher transmission fluid temperature on long drives
- A shudder or vibration felt through the vehicle during light acceleration at lockup speeds
- Harsh or delayed engagement when the PCM attempts to apply the clutch

Common causes, most likely first

- 1 Degraded or contaminated automatic transmission fluid (ATF) preventing proper clutch apply pressure
- 2 Sticking or worn torque converter clutch solenoid in the valve body
- 3 Internal hydraulic leak in the TCC apply circuit, including worn valve body bores or seals
- 4 Failed torque converter clutch lining or damper assembly inside the converter
- 5 Faulty engine coolant temperature (ECT) or transmission fluid temperature sensor causing the PCM to inhibit or misjudge lockup
- 6 Wiring or connector fault between the PCM and the TCC solenoid
- 7 PCM calibration or internal driver fault, though this is the least common cause



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1743, then verify the TCIL is commanded on by the PCM rather than a separate circuit
- 2 Check ATF level, condition and colour; service the fluid and filter if it is dark, burnt or overdue
- 3 Use a scan tool to command the TCC on and off while watching engine RPM and transmission input speed to confirm whether lockup actually occurs
- 4 Inspect the TCC solenoid connector and harness for corrosion, chafing or open circuits, and measure solenoid resistance against the Mazda specification
- 5 Test the TCC solenoid and valve body apply circuit with a pressure gauge to confirm hydraulic pressure reaches the converter
- 6 If electrical and hydraulic checks pass, remove the transmission and inspect the torque converter clutch lining and damper for wear or failure
- 7 After repair, clear the code and perform a relearn or adaptation drive cycle to confirm the TCC engages and the TCIL stays off

Why the TCIL can mislead on Mazda lockup faults

- A lit TCIL does not always mean the converter clutch is mechanically destroyed; a stuck solenoid or low fluid pressure can produce the same code and is far cheaper to fix.
- Mazda PCMs inhibit TCC lockup when coolant temperature is low or when certain sensor faults are present, so a bad ECT sensor can masquerade as a converter clutch failure.
- Drivers often replace the torque converter first, but a worn valve body bore in the TCC apply circuit is a common hidden cause that a new converter will not cure.
- The code can set intermittently during steady highway driving and clear itself after a key cycle, which leads some shops to dismiss it as a glitch rather than a developing hydraulic problem.
- Transmission fluid that has been overheated or mixed with the wrong specification can cause clutch shudder and lockup failure without any mechanical wear inside the converter.

Can I keep driving with P1743?

You can usually drive the vehicle short distances at moderate speed, but avoid heavy towing, sustained highway climbing and aggressive acceleration until the fault is diagnosed. Continued driving with a failed lockup clutch raises transmission fluid temperature and can turn a solenoid or fluid repair into a converter or transmission replacement.



Tools that help

- OBD-II scan tool with bidirectional TCC control and live transmission data
- Transmission pressure gauge set
- Digital multimeter for solenoid resistance and circuit testing
- Mazda-specific service information for TCC solenoid specifications and relearn procedure
- Fluid drain pan and pump for ATF service
- Transmission jack and support stand if converter removal is required

Reading P1743

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

Often seen with

P1780 Engine Intervention Readable · **P1780** Park Neutral Position Switch Malfunction Only For A/T · **P1780** Transmission Control Switch Circuit Overdrive Off Switch Not · **P1780** Modulation Pressure Switchover Valve ATCC Y34 Or Upshift Del · **P1780** Transmission Control Switch Circuit, Overdrive Off Switch No · **P1780** Park/Neutral Position Switch Circuit · **P1780** Transmission Control Switch Circuit is Out of Self-Test Rang · **P1780** CAN Torque Reduction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0740** Torque Converter Clutch Circuit Malfunction · **P0741** Torque Converter Clutch Circuit Performance or Stuck Off · **P0742** Torque Converter Clutch Circuit Stuck On

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/mazda-p1743/>

