

FORD · POWERTRAIN

P1743

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1743 · Ford

Torque Converter Clutch Solenoid Faulty

P1743 on Ford vehicles indicates that the powertrain control module (PCM) has detected an electrical fault in the torque converter clutch (TCC) solenoid circuit, which controls lockup of the torque converter for improved efficiency. The PCM monitors the solenoid's current draw and response, and when the signal falls outside the expected range, it sets this code and often disables lockup to protect the transmission.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough or shuddering engagement when the torque converter clutch attempts to lock up
- Poor fuel economy due to the converter remaining unlocked
- Slightly elevated engine RPM at highway speeds because lockup is inhibited
- Harsh or delayed shifts as the transmission strategy adjusts for the disabled clutch
- In rare cases, the engine may stall when coming to a stop if the clutch stays applied

Common causes, most likely first

- 1 Faulty torque converter clutch solenoid, including a burned-out coil or stuck armature
- 2 Damaged or chafed wiring between the PCM and the transmission solenoid pack
- 3 Corroded or loose electrical connector at the transmission case or PCM
- 4 Internal transmission harness damage, often from heat or fluid contamination
- 5 PCM software calibration issue or internal driver fault (less common)
- 6 Low or contaminated transmission fluid causing solenoid malfunction

How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace if contaminated
- 2 Inspect the solenoid connector and wiring for corrosion, chafing, or loose pins
- 3 Measure the resistance of the TCC solenoid at the transmission connector and compare to Ford specifications
- 4 Test the solenoid circuit for shorts to ground or power using a multimeter and wiring diagram
- 5 If electrical checks pass, remove the transmission pan and test the solenoid directly or replace it
- 6 Verify PCM operation by checking for driver signals with a scan tool or oscilloscope
- 7 Clear the code and perform a road test to confirm lockup operation and that the code does not return



Don't overlook the wiring harness

- A chafed wire inside the transmission often mimics a failed solenoid, so always inspect the internal harness before replacing parts.
- Ford's PCM may set P1743 if the solenoid current is slightly out of range even when the transmission still shifts acceptably, leading some drivers to ignore it until lockup fails completely.
- Contaminated transmission fluid can cause solenoid sticking and set this code without any electrical fault, so fluid condition is a critical first check.
- On some Ford models, a faulty transmission range sensor or valve body issue can trigger P1743 indirectly by disrupting solenoid control signals.
- Replacing the solenoid without addressing a corroded connector often leads to a repeat failure within a short time.

Can I keep driving with P1743?

You can usually drive with P1743, but avoid heavy towing or aggressive acceleration because the torque converter clutch may not lock up, causing higher transmission temperatures. Have the fault diagnosed soon to prevent potential transmission damage and to restore fuel efficiency.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid temperature
- Socket set and torque wrench for pan removal
- Wiring diagram for the specific Ford model

Reading P1743

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

Often seen with

P1744 Tiptronic Switch Recognition Circuit Short To Ground · **P1744** Torque Converter Clutch Solenoid Mechanical Fault · **P1744** Torque Converter Clutch System Stuck in Off Position · **P1744** Pressure Control Solenoid A Electrical · **P0700** Transmission Control System 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/ford-p1743/>

