



P1740 · Ford

Transmission system problems

This code indicates that the powertrain control module (PCM) has detected a problem within the transmission system, typically a mismatch between expected and actual transmission behavior. The PCM monitors inputs such as speed sensors, gear commands, and torque converter clutch status, and sets P1740 when the signals do not correlate as designed.

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

Symptoms you may notice

- Illumination of the check engine light or transmission control indicator lamp
- Harsh or delayed gear shifts, especially when cold
- Transmission stuck in a single gear or fails to downshift
- Torque converter clutch fails to engage or disengage properly
- Often no symptoms besides the warning light, with normal driveability
- Reduced fuel economy due to improper shift scheduling

Common causes, most likely first

- 1 Faulty transmission range sensor or digital transmission range sensor
- 2 Malfunctioning torque converter clutch solenoid or shift solenoids
- 3 Worn or damaged internal transmission components such as clutch packs or bands
- 4 Degraded transmission fluid or low fluid level
- 5 Damaged wiring or corroded connectors at the transmission harness
- 6 Failed transmission control module (TCM) or PCM software issue
- 7 Mechanical binding in the valve body or stuck shift valves

How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace fluid if contaminated
- 2 Inspect transmission wiring harness and connectors for chafing, corrosion, or loose pins
- 3 Scan all modules for stored and pending codes, and check freeze frame data for conditions when P1740 set
- 4 Test transmission range sensor and solenoids with a multimeter for resistance and continuity
- 5 Perform a road test with a scan tool to monitor commanded versus actual gear and torque converter clutch state
- 6 Verify PCM/TCM calibration and update software if a known issue exists
- 7 If electrical and fluid checks pass, perform internal transmission diagnostics or teardown for mechanical faults



What Ford technicians check first for P1740

- A loose or failing transmission range sensor often sets P1740 without any driveability complaint, so always inspect the sensor and its connector before condemning the transmission.
- Low or degraded fluid can cause the PCM to see clutch slip that triggers P1740, yet the transmission may still shift normally; a fluid service often resolves the code.
- Corroded grounds or a weak battery can cause intermittent voltage drops that mimic solenoid failures and set P1740, so check charging system and grounds early.
- On some Ford models, a software calibration issue in the PCM can cause false P1740; verify the latest calibration before replacing hard parts.
- P1740 does not always mean the transmission is failing; many cases are resolved by repairing wiring or replacing an external sensor, so avoid assuming a rebuild is needed.

Can I keep driving with P1740?

You can usually drive short distances to a repair shop, but avoid heavy acceleration, towing, or long highway trips until diagnosed. If the transmission slips, flares, or enters limp mode, stop driving to prevent further damage.

Tools that help

- OBD-II scan tool with transmission monitoring capability
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid temperature
- Factory service information for wiring diagrams and specifications
- Socket set and basic hand tools for sensor and connector access

Reading P1740

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Ford): its meaning depends on the make.
7	Transmission.
40	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 · **P0730** Incorrect Gear Ratio · **P0740** Torque Converter Clutch Circuit Malfunction · **P0750** Shift Solenoid 'A'



See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1740/>

