

SUBARU · POWERTRAIN

P1116

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1116 · Subaru

Engine Torque Control Cut Signal Circuit Low Input

P1116 on Subaru vehicles means the engine control module (ECM) has detected a low input voltage on the circuit that carries the engine torque control cut signal, which is used to momentarily reduce engine torque during automatic transmission shifts. The ECM expects to see a voltage within a specific range on this signal line, and a low reading tells it that the circuit is shorted to ground, open, or that the signal is being lost.

SYSTEM

Powertrain

CODE TYPE

Subaru specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Harsh or delayed automatic transmission shifts, especially during acceleration
- A momentary hesitation or stumble when the transmission changes gear
- Reduced engine power or a limp-home mode in some driving conditions
- Poor fuel economy or altered shift feel that the driver may attribute to transmission wear

Common causes, most likely first

- 1 Damaged or chafed wiring in the engine torque control cut signal circuit, often near the transmission bell housing or exhaust components
- 2 Corroded or loose electrical connector at the transmission control module (TCM) or ECM
- 3 Faulty transmission control module (TCM) not sending the correct signal
- 4 Failed engine control module (ECM) driver circuit for the torque cut signal
- 5 Short to ground in the signal wire between the ECM and TCM
- 6 Aftermarket electrical accessories or poor grounds interfering with the signal circuit



How to diagnose and fix it

- 1 Connect a scan tool and verify P1116 is current or pending, then check for related transmission codes and freeze-frame data
- 2 Inspect the engine torque control cut signal wiring and connectors between the ECM and TCM for chafing, corrosion, or loose pins
- 3 Measure resistance and voltage on the signal circuit with a digital multimeter (DMM) to check for a short to ground or an open circuit
- 4 Check all ground connections for the ECM and TCM, cleaning and tightening any that show resistance
- 5 If wiring and connectors are good, test the TCM output signal with an oscilloscope or substitute a known-good TCM
- 6 If the TCM is ruled out, test the ECM driver circuit and replace the ECM only after confirming the fault is internal
- 7 Clear the code and perform a relearn or adaptation drive cycle to confirm the repair

What most technicians miss on P1116

- A low input on the torque cut signal often comes from a chafed wire near the transmission mount or exhaust heat shield, not from a failed module, so always inspect the harness before condemning the TCM or ECM.
- This code can set intermittently due to a poor ground connection at the transmission or engine block, which is easy to overlook when the wiring visually appears intact.
- Aftermarket remote starters, alarm systems, or trailer wiring tapped into the CAN bus or signal circuits can corrupt the torque cut signal and trigger P1116 without any hard failure.
- Some Subaru models will set P1116 when the battery voltage is low or the charging system is weak, because the ECM misreads the signal during cranking or low-voltage conditions.
- Do not replace the transmission based on this code alone; the torque cut signal is an engine control function, and transmission shudder or harsh shifts are usually a symptom of the electrical fault rather than internal transmission damage.

Can I keep driving with P1116?

You can usually drive the vehicle short distances to a repair shop, but avoid aggressive acceleration and towing because the torque cut signal affects shift quality and engine torque management. If the check engine light flashes or the vehicle enters limp mode, stop driving and have it diagnosed promptly.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter (DMM)
- Oscilloscope for signal waveform testing
- Wire piercing probes and back-probe kit
- Electrical contact cleaner and dielectric grease
- Factory service information for wiring diagrams and pinouts

Reading P1116

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Subaru): its meaning depends on the make.

1 Fuel and air metering.

16 The exact fault within that area.

Often seen with

P1115 Oxygen Sensor Heater Circuit Short To Ground Bank 1 Sensor 1 · **P1115** Engine Torque Control Cut Signal Circuit High Input · **P1115** H02S12 Heater Circuit Low Voltage · **P1115** Engine Coolant Temperature Sensor Intermittent · **P1115** Intake Air Temperature B (IAT2) Circuit High Input · **P1115** Engine Coolant Temperature (ECT) Sensor Circuit Intermittent · **P1115** Coolant Temperature Sensor Plausibility · **P0700** Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0720** Output Speed Sensor Circuit Malfunction · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/subaru-p1116/>

