

FORD · POWERTRAIN

P1105

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1105 · Ford

Dual Alternator Upper Fault

P1105 on Ford vehicles indicates that the powertrain control module (PCM) has detected a fault in the upper control circuit of the dual alternator system, which is used on models equipped with two alternators to handle high electrical loads. The PCM monitors the upper alternator's regulator circuit and sets this code when the signal voltage is out of range or the circuit is open or shorted.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Battery warning light illuminated on the dashboard
- Electrical accessories such as lights or radio dimming or flickering
- Battery frequently discharging or going dead
- Voltage gauge reading low or fluctuating
- Often no symptoms besides the warning light

Common causes, most likely first

- Faulty upper alternator voltage regulator
- Open or shorted wiring in the upper alternator control circuit
- Corroded or loose electrical connectors at the upper alternator
- Failed powertrain control module (PCM) driver circuit
- Poor ground connection for the upper alternator

How to diagnose and fix it

- Inspect the upper alternator wiring harness and connectors for damage or corrosion
- Check the upper alternator control circuit for continuity and shorts using a multimeter
- Test the upper alternator output voltage and compare to specification
- Verify the PCM control signal at the upper alternator connector
- Repair or replace damaged wiring or connectors as needed
- Replace the upper alternator if the regulator is faulty
- Clear the code and retest the system to confirm the repair



Dual Alternator Circuit Checks Before Replacement

- A common oversight is assuming the upper alternator itself is defective when the fault lies in the control circuit wiring or connectors.
- The PCM may set P1105 due to a poor ground connection at the upper alternator, which is often overlooked during diagnosis.
- In some cases, a weak battery or charging system issue can mimic a dual alternator fault, so always load test the battery first.
- The upper alternator control circuit is separate from the lower alternator, so diagnosing only the lower unit will miss this fault.
- Intermittent faults can be caused by chafed wiring that only shorts when the engine moves, requiring a wiggle test while monitoring live data.

Can I keep driving with P1105?

If the battery warning light is on, the vehicle may continue to run on the remaining alternator, but electrical loads should be minimized and the fault should be diagnosed promptly to avoid a no-start condition.

Tools that help

- Digital multimeter
- OBD-II scanner
- Wiring diagram
- Basic hand tools

Reading P1105

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

Often seen with

P1106 Oxygen Sensor Circuit Bank 2 Sensor 1 Voltage Too Low/Air Le · **P1106** Engine Torque Control Signal 2 Circuit Malfunction · **P1106** BARO Circuit Range Performance Malfunction · **P1106** BARO Circuit Range Performance Malfunction · **P1106** MAP Sensor Circuit Voltage Intermittent · **P1106** Dual Alternator Lower Fault Manifold Absolute Pressure (MAP) · **P1106** MAP Sensor Circuit Intermittent High Voltage · **P0620** Generator Control Circuit Malfunction · **P0625** Generator Field/F Terminal Circuit Low · **P0650** Malfunction Indicator Lamp (MIL) Control 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/ford-p1105/>

