

FORD · POWERTRAIN

P1600

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1600 · Ford

Loss of KAM Power Open Circuit

P1600 on Ford vehicles means the powertrain control module (PCM) has detected an open circuit in the Keep Alive Memory (KAM) power feed, so it cannot maintain learned values and adaptive strategies when the ignition is off. The PCM monitors the KAM voltage circuit and sets this code when the expected voltage is missing or drops out during a key-off event.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the open circuit is intermittent
- Rough idle or poor driveability after each restart while the PCM relearns fuel trims
- Hesitation or unstable shifting during the first few minutes of driving after a battery disconnect
- Intermittent no-start or crank-no-start if the KAM circuit also affects other PCM keep-alive functions
- Fuel trim and idle speed values reset repeatedly, causing fluctuating idle quality
- Battery drain or repeated dead battery if the open circuit is paired with a shorted KAM feed

Common causes, most likely first

- Blown KAM fuse in the underhood or passenger compartment fuse box
- Open or corroded wire in the KAM power circuit between the battery junction box and the PCM
- Loose or damaged PCM connector pins at the KAM power terminal
- Failed PCM internal KAM power supply or voltage regulator
- Corroded or loose battery positive terminal connection affecting the KAM feed
- Damaged wiring harness from rodent damage or chafing near the PCM or fuse box
- Faulty ignition switch or main relay that interrupts KAM power unexpectedly

How to diagnose and fix it

- Check and replace the KAM fuse if it is blown, then verify voltage at the fuse with the key off
- Inspect the battery positive terminal and the KAM feed wire for corrosion, looseness, or damage
- Disconnect the PCM connector and check for bent, pushed-back, or corroded pins on the KAM power circuit
- Perform a voltage drop test on the KAM power wire from the fuse box to the PCM connector
- Repair any open or chafed wiring in the KAM circuit and recheck for the code after clearing
- If wiring and fuses are good, substitute a known-good PCM and retest to confirm internal failure
- Clear the code, perform a PCM relearn drive cycle, and verify KAM voltage is maintained with the key off



KAM power faults that mimic other codes

- A loose battery terminal or a failing battery can set P1600 because the PCM sees the KAM feed drop out during cranking, so always load-test the battery before condemning the PCM.
- Technicians often replace the PCM when the real fault is a corroded KAM fuse terminal in the battery junction box that looks fine until the fuse is removed and the socket is inspected.
- P1600 can appear alongside fuel trim and idle codes because the PCM loses its learned adaptive values every key-off cycle, so fixing the KAM circuit often clears multiple stored codes at once.
- An aftermarket alarm or remote start installation that taps the KAM circuit can create an open or high-resistance connection that sets P1600 intermittently.
- On some Ford models the KAM feed shares a fuse with other memory circuits, so a blown fuse may also kill radio presets or clock memory, which is a quick clue before any meter work.

Can I keep driving with P1600?

You can usually drive the vehicle with P1600, but expect rough running and poor fuel economy while the PCM relearns after each restart. Avoid long trips until the KAM circuit is repaired, because repeated memory loss can mask other faults and cause driveability complaints.

Tools that help

- Digital multimeter with voltage and voltage-drop capability
- Fuse puller and test light
- Wiring diagram for the specific Ford model
- PCM connector pin removal tools
- Scan tool capable of clearing codes and viewing live PCM data

Reading P1600

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Ford): its meaning depends on the make.
6	Computer and output circuits.
00	The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0600** Serial Communication Link Malfunction · **P0601** Internal Control Module Memory Checksum Error · **P0602** Control Module Programming Error · **P0603** Internal Control Module KAM Error



See it working

Watch the animated explainer [How a Six-Speed Manual Gearbox Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1600/>

