

GENERIC · POWERTRAIN

P064F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P064F

Unauthorized Software/Calibration Detected

P064F is a generic powertrain code that the engine control module (ECM) sets when it detects an unauthorized software or calibration file has been loaded into a control module on the vehicle's communication network. The ECM compares the calibration identification and checksum of one or more modules against the values it expects from the manufacturer, and it flags this code when the software does not match the approved production or service release.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Computer and output circuits

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) with no noticeable change in engine performance
- Reduced engine power or a limp-home mode if the unauthorized calibration affects torque management or emissions strategy
- Transmission may shift harshly or refuse to enter certain gears when the affected module is the transmission control module (TCM)
- Remote start, cruise control, or other convenience features may be disabled as part of the module's tamper response
- Often no symptoms besides the warning light, especially when the altered calibration is in a module that does not directly control the engine
- A message on the driver information center stating that service or a software update is required

Common causes, most likely first

- 1 Aftermarket performance tune or 'chip' installed in the ECM or TCM that changes the calibration identification or checksum
- 2 Unauthorized software update performed by a third party using non-OEM flashing tools or files
- 3 Failed or interrupted reprogramming event that left a module with a corrupted or incomplete calibration
- 4 Replacement module installed without performing the required programming and configuration procedure
- 5 Voltage spike or electrical fault during a legitimate flash that corrupted the calibration memory
- 6 Counterfeit or mismatched module installed from another vehicle without proper initialization
- 7 Software tampering intended to disable emissions controls or defeat security features



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes, freeze-frame data, and module calibration identification numbers before clearing anything
- 2 Verify battery voltage and charging system output, then perform a full scan of all modules to see which module reports the unauthorized calibration
- 3 Check for aftermarket devices such as piggyback tuners, plug-in modules, or modified wiring near the ECM and remove them if present
- 4 Reprogram the affected module with the latest OEM calibration using a factory-authorized diagnostic tool and a stable power supply
- 5 If reprogramming fails, inspect the module connectors and wiring for corrosion or damage, then retry the flash procedure
- 6 Replace the module only if it cannot be reprogrammed or if internal memory corruption is confirmed, then perform initialization and relearn procedures
- 7 Clear codes, complete a drive cycle, and verify that P064F does not return before releasing the vehicle

What the calibration check actually compares

- The ECM does not read the tune file itself; it compares a calibration identification number and a checksum against a known-good value, so a tune that preserves those values can sometimes avoid this code even though the software is altered.
- A weak battery or a battery charger that drops voltage during a legitimate reprogramming event is a common cause of a corrupted calibration that sets P064F, so always use a power supply when flashing.
- This code can be set by a module that was replaced with a used unit from another vehicle and never initialized, which is often mistaken for a deliberate tamper.
- Some vehicles set P064F after a failed over-the-air update, and the fix is simply to complete the update with a dealer-level tool rather than replacing any hardware.
- Clearing the code without restoring the correct calibration will usually result in the code returning after one or two drive cycles once the ECM completes its verification routine.

Can I keep driving with P064F?

The vehicle is generally safe to drive if it runs normally, but avoid heavy acceleration or towing until the calibration is corrected because the unauthorized software may affect emissions, fuel delivery, or torque management. If the vehicle is in limp mode or the transmission behaves erratically, have it towed or driven only to the nearest repair facility.



Tools that help

- OEM-level scan tool with reprogramming capability
- Stable power supply or battery charger
- Digital multimeter
- Factory service information for calibration procedures
- Socket and ratchet set for module access

Reading P064F

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
6	Computer and output circuits.
4F	The exact fault within that area.

Often seen with

P0601 Internal Control Module Memory Checksum Error · **P0602** Control Module Programming Error · **P0603** Internal Control Module KAM Error · **P0606** PCM Processor Fault · **P0630** VIN Not Programmed or Incompatible - ECM/PCM

See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p064f/>

