

GENERIC · POWERTRAIN

P063F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P063F

Auto Configuration Engine Coolant Temperature Input Not Present

P063F indicates that the engine control module (ECM) has not received a valid engine coolant temperature (ECT) signal during its automatic configuration or self-test routine. The ECM expects to see a plausible voltage from the ECT sensor when it runs its configuration check, and this code sets when that input is missing or out of range.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- Illuminated check engine light (malfunction indicator lamp) on the dashboard
- Often no symptoms besides the warning light
- Poor fuel economy or rich-running condition due to incorrect temperature data
- Rough idle or stalling when the engine is cold
- Inaccurate or inoperative temperature gauge on the instrument cluster
- Cooling fan running constantly or not at all

Common causes, most likely first

- 1 Faulty engine coolant temperature (ECT) sensor
- 2 Damaged or disconnected wiring to the ECT sensor
- 3 Corroded or loose electrical connector at the ECT sensor
- 4 Open or shorted circuit in the ECT sensor signal or ground wire
- 5 Failed engine control module (ECM) or a software configuration issue
- 6 Low coolant level or air pockets causing the sensor to read incorrectly
- 7 Aftermarket or incorrect ECT sensor installed



How to diagnose and fix it

- 1 Check for any related diagnostic trouble codes (DTCs) and record freeze-frame data to understand when the fault occurred
- 2 Inspect the ECT sensor connector and wiring for damage, corrosion, or loose pins
- 3 Measure the resistance of the ECT sensor with a multimeter and compare to the manufacturer's temperature-resistance chart
- 4 Backprobe the ECT sensor signal circuit at the ECM to verify the voltage changes with temperature
- 5 Check for continuity and voltage drops on the sensor ground circuit
- 6 If the circuit and sensor test good, verify the ECM has the correct software calibration and perform a relearn or reprogram if required
- 7 Replace the ECT sensor if it fails resistance testing, then clear the code and verify the repair with a test drive

Don't overlook the coolant level and air pockets

- A low coolant level or trapped air around the ECT sensor can cause a missing or erratic signal without any sensor or wiring fault, so always check the cooling system first.
- The code can set intermittently due to a poor connection that only acts up with vibration or temperature changes, so wiggle-test the harness while watching live data.
- Some vehicles require a configuration or relearn procedure after battery replacement or ECM replacement, and skipping it can trigger P063F even with good hardware.
- A faulty thermostat that keeps the engine from reaching normal operating temperature can make the ECT signal appear implausible during the configuration check, mimicking a sensor failure.
- Aftermarket sensors with incorrect resistance curves are a common cause of this code on vehicles that have had recent cooling system repairs.

Can I keep driving with P063F?

You can usually drive the vehicle with this code, but the engine may run less efficiently and the cooling fan may not operate correctly, so avoid heavy loads or long trips until it is diagnosed. If the temperature gauge is not working or the engine overheats, stop driving and seek professional help.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Temperature probe or infrared thermometer
- Wiring diagram for the specific vehicle
- Basic hand tools for sensor removal



Reading P063F

- 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.
- 3F** The exact fault within that area.

Often seen with

P0115 Engine Coolant Temperature Circuit Malfunction · **P0116** Engine Coolant Temperature Circuit Range/Performance · **P0117** Engine Coolant Temperature Circuit Low Input · **P0118** Engine Coolant Temperature Circuit High Input · **P0128** Coolant Thermostat (Coolant Temperature Below Thermostat Reg

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p063f/>

