

TOYOTA · POWERTRAIN

P1126

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1126 · Toyota

Magnetic Clutch Circuit

P1126 on Toyota vehicles indicates that the engine control module (ECM) has detected an open or short circuit in the magnetic clutch circuit for the air conditioning compressor. The ECM monitors the clutch relay control circuit and sets this code when the voltage or current feedback falls outside the expected range during activation or deactivation.

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

Symptoms you may notice

- The air conditioning compressor clutch does not engage, so the air blows warm.
- The check engine light (malfunction indicator lamp) is illuminated.
- The air conditioning may work intermittently or only engage at certain engine speeds.
- A clicking or cycling noise from the compressor area may be heard as the clutch tries to engage.
- Often no symptoms besides the warning light if the clutch circuit fails only under specific conditions.
- The engine idle may fluctuate when the air conditioning is turned on due to the ECM altering idle speed to compensate for clutch engagement.

Common causes, most likely first

- Failed magnetic clutch assembly, including an open or shorted clutch coil.
- Damaged or corroded wiring harness between the ECM and the magnetic clutch.
- Blown fuse or faulty relay in the magnetic clutch control circuit.
- Poor electrical connection at the clutch connector or ECM connector.
- Failed air conditioning pressure switch or refrigerant pressure sensor causing the ECM to disable the clutch and set a circuit code.
- Internal ECM fault, though this is rare and should be confirmed after all other possibilities are ruled out.



How to diagnose and fix it

- 1 Check the air conditioning fuse and relay, replacing any blown fuse or faulty relay as needed.
- 2 Inspect the magnetic clutch coil for continuity and resistance using a multimeter, comparing to factory specifications.
- 3 Inspect the wiring harness and connectors between the ECM and the clutch for damage, corrosion, or loose pins.
- 4 Measure voltage and resistance on the clutch control circuit at the ECM connector to verify signal integrity.
- 5 Test the air conditioning pressure switch and refrigerant pressure sensor, as low refrigerant or a faulty sensor can prevent clutch engagement.
- 6 If all electrical checks pass, substitute a known-good magnetic clutch or ECM to isolate the fault.
- 7 Clear the diagnostic trouble code and perform a road test with the air conditioning on to confirm the repair.

Magnetic Clutch Circuit Quirks on Toyota

- A common oversight is assuming the clutch itself is bad when the real problem is a corroded connector at the compressor, which is exposed to heat and vibration.
- The ECM may set P1126 if the air conditioning refrigerant pressure is too low, so always check system pressures before condemning electrical parts.
- On some Toyota models, the magnetic clutch circuit is shared with the engine cooling fan circuit, so a fan malfunction can trigger this code.
- Intermittent clutch operation can be caused by a failing clutch relay that tests fine when cold but fails when hot, so bench testing the relay is not always conclusive.
- After replacing the clutch or ECM, the ECM may need to relearn the clutch engagement parameters; failing to do so can cause a repeat code.

Can I keep driving with P1126?

You can drive the vehicle with P1126, but the air conditioning will not function, which may be uncomfortable in hot weather. Avoid using the air conditioning until the fault is repaired to prevent potential damage to the compressor or clutch, and address the issue promptly to avoid further electrical problems.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Socket set and wrenches
- Factory service information for circuit specifications



Reading P1126

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

Often seen with

P1128 Long Term Fuel Trim Bank 1 System Too Lean · **P1125** Long Term Fuel Trim Add Air Bank 2 System Too Rich · **P1127** Long Term Fuel Trim Bank 1 System Too Rich · **P1128** Throttle Control Motor Lock · **P1125** Throttle Control Motor Circuit · **P1127** ETCS Actuator Power Source Circuit · **P1128** MAP Lower Than Expected · **P1125** Tandem Throttle Position Sensor Circuit Fault · **P1128** HO2S Bank 1 Sensor 1 Signals Swapped In Key On Engine Runnin · **P1125** Throttle Position Sensor Signal Intermittent · **P1127** HO2S Bank 1 Sensor 2 Heater Not On During Key On Engine Runn · **P1127** Long Term Fuel Trim Multiplicative Air System Low · **P1128** Long Term Fuel Trim Multiplicative Air System High · **P1128** MAP Lower Than Expected · **P1125** Accelerator Pedal Position Sensor Fault · **P1128** Upstream Heated Oxygen Sensor Signals Reversed · **P1127** Exhaust Not Warm Enough Downstream O2 Sensor Not Tested · **P1125** Throttle Position Sensor Intermittent · **P1125** Accelerator Pedal Position (APP) System · **P0530** A/C Refrigerant Pressure Sensor 'A' Circuit · **P0645** A/C Clutch Relay Control Circuit

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/toyota-p1126/>

