

VOLKSWAGEN · POWERTRAIN

P1327

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1327 · Volkswagen

Cylinder 3 Knock Control Limit Attained

P1327 on a Volkswagen means the engine control module (ECM) has detected that cylinder 3's knock sensor signal has reached the maximum knock control limit, indicating the ECM can no longer retard ignition timing enough to suppress detonation on that cylinder. The ECM is seeing persistent knock activity on cylinder 3 that exceeds its programmed correction range, often due to low-octane fuel, carbon buildup, or a faulty knock sensor circuit.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

**Ignition system
and misfire**

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Audible pinging or knocking from the engine under acceleration or load
- Reduced engine power or sluggish acceleration as the ECM pulls timing
- Rough idle or hesitation, especially on turbocharged models
- Poor fuel economy due to retarded ignition timing
- In severe cases, engine misfire or shudder under load

Common causes, most likely first

- 1 Low-octane or contaminated fuel in the tank
- 2 Carbon deposits on cylinder 3 piston crown or combustion chamber raising compression
- 3 Faulty knock sensor or damaged knock sensor wiring/connector
- 4 Loose or improperly torqued knock sensor
- 5 Failed spark plug or ignition coil on cylinder 3 causing pre-ignition
- 6 Overheating or cooling system issue raising combustion temperatures
- 7 Engine mechanical issue such as excessive carbon or incorrect valve timing



How to diagnose and fix it

- 1 Verify fuel octane rating and drain/replace with correct premium fuel if suspect
- 2 Scan all modules for stored codes and check freeze-frame data for knock retard values
- 3 Inspect knock sensor connector and wiring for corrosion, chafing, or loose pins
- 4 Remove and inspect spark plug on cylinder 3 for signs of detonation or incorrect heat range
- 5 Perform a carbon cleaning service (intake valve or combustion chamber) if deposits are suspected
- 6 Check knock sensor mounting torque and replace sensor if resistance or signal is out of spec
- 7 Verify cooling system operation and check for engine overheating or lean fuel mixture

What most technicians overlook on P1327

- A loose knock sensor or corroded connector can mimic a failed sensor, so always check mounting torque and terminal condition before replacement.
- Carbon buildup on direct-injection Volkswagen engines often causes cylinder-specific knock that clears after a proper intake valve cleaning.
- P1327 can be set by a failing ignition coil on cylinder 3 that causes pre-ignition without setting a misfire code, so swap coils to confirm.
- Low-octane fuel is the most common cause, but a stuck-open thermostat or weak coolant pump can raise combustion temperatures enough to trigger this code.
- On some VW models, a software update for the ECM recalibrates knock control thresholds, so check for applicable service bulletins before parts replacement.

Can I keep driving with P1327?

You can drive cautiously to a repair shop, but avoid heavy acceleration, towing, or high-load conditions that worsen knock and risk engine damage. If the check engine light flashes or you hear loud knocking, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for sensor and wiring testing
- Torque wrench for knock sensor installation
- Spark plug socket and extension
- Fuel octane tester or fuel pressure gauge
- Borescope for inspecting combustion chamber carbon



Reading P1327

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 3** Ignition system and misfire.
- 27** The exact fault within that area.

Often seen with

P1300 Misfire Detected Fuel Level Too Low · **P1300** Igniter Circuit Malfunction No 1 · **P1300** Random Misfire · **P1300** Ignition Timing Adjustment Circuit · **P1300** Random Misfire · **P1300** Ignition Coil 1 Primary Feedback Circuit · **P1300** Boost Calibration Fault · **P1300** Ignitor Circuit · **P0303** Cylinder 3 Misfire Detected · **P0325** Knock Sensor 1 Circuit Malfunction (Bank 1) · **P0327** Knock Sensor 1 Circuit Low Input (Bank 1) · **P0328** Knock Sensor 1 Circuit High Input (Bank 1)

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/volkswagen-p1327/>

