

GENERIC · POWERTRAIN

P2657

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2657

'A' Rocker Arm Actuator System Stuck On (Bank 2)

P2657 means the powertrain control module (PCM) commanded the bank 2 'A' rocker arm actuator to a specific state, but the circuit feedback indicates the actuator is stuck in the on position. The PCM detects this by comparing its command to the voltage or current returned from the actuator circuit, and it sets the code when the feedback remains in the on state longer than expected.

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, often with no other noticeable symptoms
- Rough idle or misfire felt at low engine speeds
- Reduced engine power or poor acceleration
- Audible ticking or tapping from the bank 2 valve cover area
- Slightly higher fuel consumption than normal
- In some cases, the engine may enter limp mode

Common causes, most likely first

- 1 Faulty bank 2 'A' rocker arm actuator solenoid or its internal coil
- 2 Wiring harness damage such as chafed, shorted, or open circuits between the PCM and the actuator
- 3 Corroded or loose electrical connector at the actuator or PCM
- 4 Sticking or mechanically binding rocker arm actuator assembly
- 5 PCM internal driver fault holding the circuit on
- 6 Oil sludge or debris obstructing the actuator, preventing it from returning to the off position



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related pending or history codes
- 2 Inspect the actuator connector and wiring for corrosion, chafing, or loose pins
- 3 Measure resistance and voltage on the actuator control circuit and compare to manufacturer specifications
- 4 Command the actuator on and off with a bidirectional scan tool and observe whether the feedback follows the command
- 5 Remove and inspect the bank 2 'A' rocker arm actuator for mechanical binding or sludge buildup
- 6 If the actuator tests good, check the PCM driver circuit with a noid light or oscilloscope
- 7 Replace the faulty actuator or repair the wiring as needed, then clear the code and verify the repair with a test drive

What the feedback circuit reveals about P2657

- A stuck-on actuator can be caused by a short to voltage in the control wire, which mimics a failed solenoid and often gets missed during parts swapping.
The PCM may set P2657 even when the actuator mechanically moves freely, because the code is triggered by electrical feedback rather than actual rocker arm position.
- Oil sludge or varnish from extended oil change intervals can prevent the actuator from returning to its rest position, causing a stuck-on condition without any electrical fault.
- Technicians sometimes replace the actuator only to find the connector pins are pushed back or corroded, so always perform a wiggle test on the harness while monitoring feedback.
A failing PCM driver for the bank 2 actuator circuit is rare but possible, and it should be ruled out only after all wiring and actuator tests pass.

Can I keep driving with P2657?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a stuck-on rocker arm actuator can cause misfires and may lead to catalytic converter damage over time. If the engine runs very rough or enters limp mode, stop driving and have it towed.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Test light or noid light
- Oscilloscope (optional for waveform analysis)
- Basic hand tools and socket set
- Manufacturer service information for circuit specifications



Reading P2657

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

Often seen with

P2654 'B' Rocker Arm Actuator Control Circuit High (Bank 1) · **P2655** 'A' Rocker Arm Actuator Control Circuit/Open (Bank 2) · **P2656** 'A' Rocker Arm Actuator System Performance or Stuck Off (Bank 1) · **P2658** 'A' Rocker Arm Actuator Control Circuit Low (Bank 2) · **P2659** 'A' Rocker Arm Actuator Control Circuit High (Bank 2)

See it working

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

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2657/>

