

GM · POWERTRAIN

P1656

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1656 · GM

Driver 2 Line 6

P1656 on GM vehicles means the powertrain control module (PCM) has detected an abnormal condition on the driver 2 line 6 circuit, which is a dedicated communication or control line used by the PCM to operate a specific output device. The PCM monitors the voltage or current on this line and sets the code when the signal falls outside the expected range, indicating an open circuit, short to ground, or short to voltage.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- The affected output device may not operate at all, such as a solenoid, relay, or actuator failing to engage
- Rough running or poor performance if the line controls an engine management component
- Transmission shift quality changes if the line is tied to a shift solenoid or pressure control circuit
- Intermittent operation of the affected device, especially over bumps or in wet weather
- Reduced fuel economy or increased emissions if the circuit controls a fuel or emission device

Common causes, most likely first

- 1 Damaged wiring harness or connector at the driver 2 line 6 circuit, often from chafing, corrosion, or rodent damage
- 2 Failed output device (solenoid, relay, or actuator) that the line controls, causing abnormal current draw
- 3 Poor ground connection for the circuit, leading to voltage drop and false monitoring
- 4 Faulty powertrain control module (PCM) driver circuit, though this is less common than wiring issues
- 5 Aftermarket accessories or poor previous repairs tapping into the circuit and altering its signal
- 6 Water intrusion into a connector or module causing intermittent shorts



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes and freeze-frame data to confirm P1656 is the primary fault and identify the affected device
- 2 Obtain the factory wiring diagram for the specific GM vehicle and locate driver 2 line 6, then inspect the harness and connectors for damage or corrosion
- 3 Disconnect the affected output device and measure resistance across its terminals to check for an open or shorted coil
- 4 With the device disconnected, check the control wire for short to ground and short to voltage using a digital multimeter
- 5 Perform a voltage drop test on the ground circuit and power feed to the device while commanding it on with the scan tool
- 6 Repair or replace any damaged wiring, connectors, or the faulty output device, then clear codes and verify the circuit operates correctly
- 7 If all external circuits and components test good, suspect the PCM and perform a pin-out and driver test before replacement

What the driver 2 line 6 circuit really controls

- Driver 2 line 6 is not a generic communication line; on many GM platforms it is a specific low-side driver output for a solenoid or relay, so the exact device varies by model and engine, making the wiring diagram essential.
- A common misdiagnosis is replacing the PCM when the real fault is a chafed wire behind the engine block or near an exhaust manifold, where heat and vibration damage the insulation.
- The code can set intermittently from a poor connection at a connector that looks fine visually but has terminal tension loss, so a wiggle test while monitoring the circuit is often more revealing than a static meter check.
- Aftermarket remote starters or alarm systems spliced into the wrong wire can back-feed the driver circuit and set P1656 without any factory component being faulty.
- On some GM vehicles, a weak battery or charging system fault can cause the PCM to misreport driver circuit codes, so always verify system voltage is stable before chasing the circuit.

Can I keep driving with P1656?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy load or long trips because the affected device may not function, which could impact engine performance, emissions, or transmission operation. If the vehicle runs poorly or shifts harshly, stop driving and have it towed.



Tools that help

- Scan tool with bidirectional controls and live data
- Digital multimeter with min/max and duty cycle capability
- Factory service information or wiring diagram for the specific GM vehicle
- Test light or logic probe
- Back-probe kit and terminal removal tools
- Hand tools for connector and component access

Reading P1656

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (GM): its meaning depends on the make.
6	Computer and output circuits.
56	The exact fault within that area.

Often seen with

P1655 Check DTC Memory Of Distance Control ECU · **P1657** A/C Clutch Relays Circuit Short To B+ · **P1655** TMA or TMB Signal Line Fault · **P1655** Unused Power Stage 'B' · **P1655** TMA or TMB Signal Line Fault · **P1655** EVAP Purge Solenoid Control Circuit · **P1657** 1-4 Upshift Solenoid Control Circuit · **P1657** CAN Link Chip Malfunction · **P0135** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1) · **P0443** EVAP Purge Control Valve Circuit Malfunction · **P0650** Malfunction Indicator Lamp (MIL) Control Circuit Malfunction

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1656/>

