

BMW · POWERTRAIN

P1118

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1118 · BMW

Mass Or Volume Air Flow Circuit High Input Bank 2

P1118 on BMW vehicles indicates that the engine control module (ECM) has detected an abnormally high signal voltage from the bank 2 mass air flow (MAF) sensor circuit, which typically corresponds to a condition where the sensor is reporting more air entering the engine than is physically possible. The ECM sets this code when the MAF sensor signal exceeds the maximum expected threshold for a calibrated period, often due to a wiring short to voltage, a contaminated sensor element, or a faulty sensor.

SYSTEM

Powertrain

CODE TYPE

BMW specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling, particularly when the engine is cold
- Hesitation or flat spots during acceleration
- Poor fuel economy due to incorrect air mass reporting
- Black smoke from the exhaust or a strong fuel odor indicating a rich running condition
- In rare cases, the engine may enter limp mode with reduced power

Common causes, most likely first

- 1 Contaminated or failed bank 2 mass air flow sensor
- 2 Short to voltage in the MAF sensor signal circuit
- 3 Corroded or loose electrical connector at the bank 2 MAF sensor
- 4 Intake air leak downstream of the MAF sensor (unmetered air)
- 5 Faulty engine control module (ECM) driver circuit (less common)
- 6 Wiring harness damage from chafing or heat exposure



How to diagnose and fix it

- 1 Inspect the bank 2 MAF sensor connector and wiring for corrosion, looseness, or damage; clean or repair as needed
- 2 Check the MAF sensor signal circuit for a short to voltage using a digital multimeter (DMM) and wiring diagram
- 3 Clean the MAF sensor element with a dedicated MAF cleaner and re-test; replace if contamination is severe
- 4 Perform a smoke test to check for intake leaks between the MAF sensor and throttle body
- 5 Compare live bank 2 MAF sensor readings with bank 1 (if equipped) or with expected values using a scan tool
- 6 Replace the bank 2 MAF sensor if cleaning and wiring repairs do not resolve the high signal voltage
- 7 Clear the fault memory and verify the repair by test-driving the vehicle and monitoring MAF sensor data

Don't replace the MAF sensor before checking these

- A high input code often results from a short to voltage in the signal wire, not a failed sensor; always check the harness for rubbed-through insulation near hot components.
- Unmetered air from a cracked intake boot or leaking vacuum hose can cause the MAF sensor to report a higher air mass than actual, triggering P1118 on bank 2.
- On BMW engines with two MAF sensors, swapping bank 1 and bank 2 sensors can help isolate whether the fault follows the sensor or stays with the circuit.
- A dirty MAF sensor element from an oiled air filter or excessive oil mist can skew readings high; cleaning may resolve the code without replacement.
- The ECM itself rarely fails, but a shorted driver circuit inside the ECM can mimic a sensor fault; confirm wiring integrity before condemning the module.

Can I keep driving with P1118?

You can drive the vehicle with P1118, but avoid aggressive acceleration and heavy loads until the fault is repaired, as incorrect air mass readings can cause rich running, poor fuel economy, and potential damage to spark plugs or the catalytic converter over time.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter (DMM)
- MAF sensor cleaner
- Smoke machine for intake leak testing
- Basic hand tools (screwdrivers, socket set)
- Wiring diagram for the specific BMW model



Reading P1118

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

Often seen with

P1117 Oxygen Sensor Heater Circuit Short To Ground Bank 1 Sensor 2 · **P1117** ECT Sensor Signal Intermittent · **P1117** HO2S12 Heater Circuit Low Voltage · **P1117** Engine Coolant Temperature Below Minimum Voltage · **P1117** Engine Coolant Temperature Sensor Intermittent · **P1117** Engine Coolant Temp Signal Out-Of-Range Low · **P1117** Mass Or Volume Air Flow Circuit Low Input Bank 2 · **P0102** Mass/Volume Air Flow Circuit Low Input · **P0103** Mass/Volume Air Flow Circuit High Input · **P0172** System Too Rich (Bank 1) · **P0175** System Too Rich (Bank 2)

See it working

Watch the animated explainer [How a Wideband Air-Fuel Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1118/>

