WAGNER™

TROUBLE TRACER CHART
POSSIBLE CAUSES OF SENSOR FAILURE

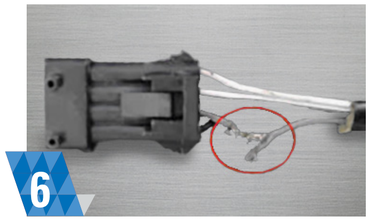
FAULTY SENSOR (All Sensors)
The sensor itself, due to a manufacturing or transportation issue, may be defective.

DIRT AND CONTAMINATION (All Sensors)
Dust, dirt, and oil can accumulate on the sensor, affecting its ability to operate accurately.

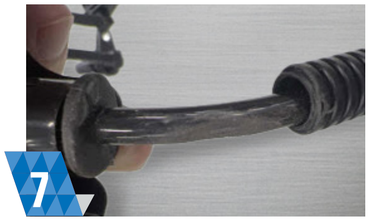
SENSOR CORROSION (All Sensors)
Moisture and salt corrode the sensor connectors.

MECHANICAL DAMAGE (All Sensors)
Physical damage to the sensor due to improper handling or impact.

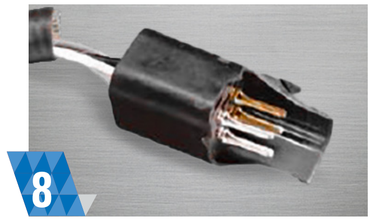
EXCESSIVE VIBRATION (All Sensors)
Road vibrations, worn suspension parts or improper tightening torque loosen or damage sensors.



WIRING ISSUES (All Sensors)
Broken, frayed or shorted wiring or connectors leading to or from the sensor.



ELECTRICAL FAILURES (All Sensors)
Short circuits, open circuits, or electrical faults in the vehicle's wiring system can cause sensor malfunctions. Faulty voltage supply or grounding issues can also lead to incorrect sensor operation.



CONNECTOR PROBLEMS (All Sensors)
Corroded or loose connectors causing poor electrical connections.

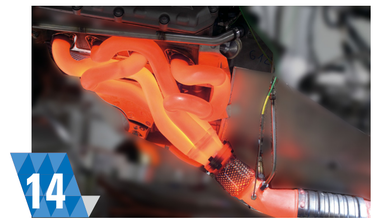
ECU ISSUES (All Sensors)
In rare cases, electronic control unit (ECU) may be faulty and not correctly interpreting the sensor signals.

SENSOR AGING AND WEAR (All Sensors)
Over time, sensors can wear out due to normal aging. The sensor internal components can become less responsive, leading to slower reaction time or inadequate readings.

CALIBRATION AND SOFTWARE ISSUES (All Sensors)
Incorrect sensor calibration or faulty ECU software can result in improper digital trouble codes (DTCs) being set.

VACUM LEAKS (For MAF)
Leaks in the intake system can introduce unmetered air, causing inaccurate MAF sensor readings.

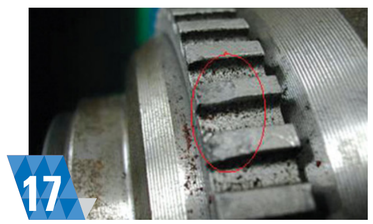
EXHAUST LEAKS (For DPS, EGT, lambda and NOx)
Leaks in the exhaust system (before and after DPF or catalytic converter) or intake can result in abnormal sensor readings.



MECHANICAL HEAT DAMAGE
(for DPS, EGT, lambda and NOx): Prolonged exposure to extreme heat can cause sensor degradation. Repeated thermal cycling (Heating and cooling) can lead to cracks or breakages in sensor internal components.

POOR QUALITY OF THE SCR REDUCTANT FLUID (for NOx and EGT)
Contaminated or incorrect chemical composition can affect sensor readings.

FAULTY SENSOR RING (for CMP, CKP and WSS)
Cracked or worn sensor rings provide inaccurate data.



RELUCTOR RING ISSUES (for CMP, CKP and WSS inductor sensors)
Damage, misalignment or excessive dirt on the reluctor ring (Toothed wheel that the sensor reads) can cause improper readings.

TIMING PROBLEMS (For CMP)
Worn or improperly aligned timing belts or chains affecting the camshaft position.

In collaboration with

GARAGE GURUS

CKP: Crankshaft sensor
CMP: Camshaft sensor
MAF: Mass Air Flow sensor
TPS: Throttle position sensor
Lambda: Lambda sensor
DPS: Pressure sensor
EGT: Temperature sensor
NOx: Nox sensor
WSS: Wheel speed sensor (ABS)

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