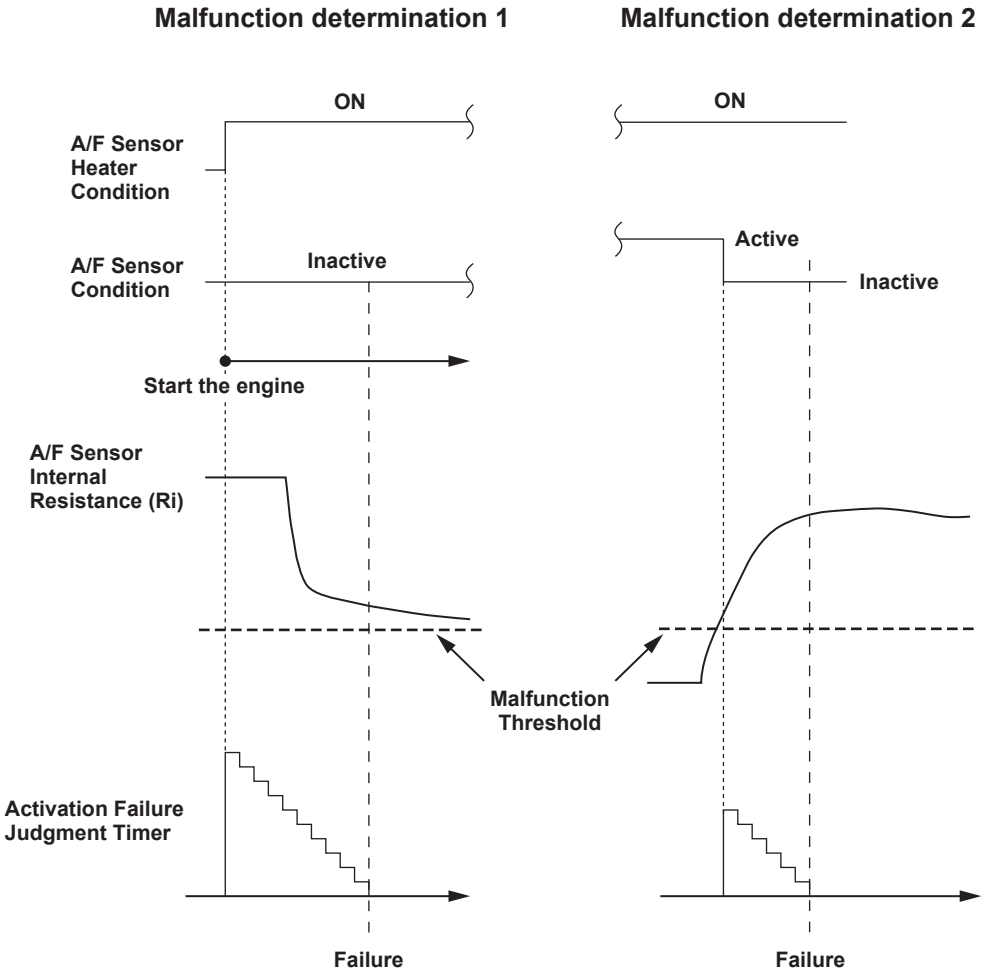
DTC P0134: Air/Fuel Ratio (A/F) Sensor (Sensor 1) No Activity Detected



General Description

The air/fuel ratio (A/F) sensor is activated by warming the element with the heater and by maintaining it at a steady high temperature to accurately calculate the air/fuel (A/F) ratio. The A/F sensor does not become active when the element is not heated enough due to a heater malfunction, etc., and the exhaust emissions deteriorate. The engine control module (ECM) monitors the A/F sensor activity by the A/F sensor internal resistance.

1. When the A/F sensor does not activate in a fixed time after the A/F sensor heater starts to operate (during high A/F sensor internal resistance), a malfunction of the A/F sensor heater is detected, and a DTC is stored.
2. When the A/F sensor heater does not reactivate within a fixed time as indicated by a change from high A/F sensor internal resistance to low A/F sensor internal resistance though the heater is ON, a malfunction in the A/F sensor heater is detected, and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	90 seconds or more
DTC Type	One drive cycle, MIL ON

Enable Conditions

Condition	Minimum	Maximum
Engine coolant temperature	14ºF (-10ºC)	—
Battery voltage	10.5 V	—
Fuel feedback	Other than during fuel cut-off operation	
No active DTCs	A/F Sensor, ECT	

Malfunction Threshold

Malfunction determination 1
The A/F sensor internal resistance value is 40 Ω or more for at least 90 seconds right after the engine starts.

Malfunction determination 2
The A/F sensor internal resistance value is 40 Ω or more for at least 16 seconds.

Driving Pattern

1. Start the engine. Hold the engine at 3,000 rpm with no load (in park or neutral) until the radiator fan comes on.
2. Let the engine idle for at least 2 minutes.

Diagnosis Details

Conditions for illuminating the MIL
When a malfunction is detected, the MIL comes on and the DTC and the freeze frame data are stored in the ECM memory.

Conditions for clearing the MIL
The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.