

P0140: O2 Sensor (HO2S) Circuit No Activity Detected (Sensor-2)

Wiring Diagram

Refer to "DTC P0137 / P0138: O2 Sensor (HO2S) Circuit Low Voltage / High Voltage (Sensor-2)".

DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble area
HO2S-2 voltage is higher than specified value after warming up engine (circuit open). (2 driving cycle detection logic)	<ul style="list-style-type: none">•HO2S-2•HO2S-2 circuit•ECM•Exhaust gas leakage•Air intake system

DTC Confirmation Procedure

- 1) With ignition switch turned OFF, connect scan tool.
- 2) Turn ON ignition switch and clear DTC using scan tool.
- 3) Start engine and warm up to normal operating temperature.
- 4) Increase vehicle speed to 60 – 80 km/h (37 – 50 mile/h) at 5th gear or D range.
- 5) Release accelerator pedal and with engine brake applied, keep vehicle coasting (with fuel cut for 4 sec. or more), then stop vehicle and run engine at idle speed for 60 sec. or more.
- 6) Check DTC and pending DTC.

DTC Troubleshooting

Step	Action	Yes	No
1	Was "Engine and Emission Control System Check" performed?	Go to Step 2.	Go to "Engine and Emission Control System Check".
2	<p>HO2S-2 ground check</p> <p>1) Disconnect connector from HO2S-2 with ignition switch turned OFF.</p> <p>2) Check for proper connection to HO2S-2 connector at "RED/BLU", "BRN", "ORN" and "BLK/WHT" wire terminals. 3) If connections are OK, measure resistance between "ORN" wire terminal of HO2S-2 connector and engine ground.</p> <p>Is resistance less than 5 Ω?</p>	Go to Step 3.	"ORN" wire is open or high resistance circuit. Poor "C01-57" terminal connection. Faulty ECM ground. If they are OK, substitute a known-good ECM and recheck.
3	<p>Wire circuit check</p> <p>1) Turn OFF ignition switch.</p> <p>2) Remove ECM from its bracket with ECM connectors connected.</p> <p>3) Measure resistance between "BRN" wire terminal of HO2S-2 connector and "C01-11" terminal of ECM connector.</p> <p>Is resistance less than 5 Ω?</p>	Go to Step 4.	"BRN" wire is high resistance circuit or open circuit. Poor "C01-11" terminal connection. If they are OK, substitute a known-good ECM and recheck.

Step	Action	Yes	No
4	<p>HO2S-2 signal circuit check</p> <p>1) Disconnect connectors from ECM with ignition switch turned OFF.</p> <p>2) Measure voltage between "BRN" wire terminal of HO2S-2 connector and vehicle body ground.</p> <p>Is voltage 0 V?</p>	Go to Step 5.	"BRN" wire is shorted to other circuit.
5	<p>HO2S-2 heater circuit check</p> <p>1) Check HO2S-2 heater circuit referring to "DTC P0037 / P0038: HO2S Heater Control Circuit Low / High (Sensor-2)".</p> <p>Is circuit in good condition?</p>	Go to Step 6.	Repair HO2S-2 circuit. If circuit is OK, substitute a known-good ECM and recheck.
6	<p>Exhaust system check</p> <p>1) Check exhaust system for exhaust gas leakage. Is it OK?</p>	Go to Step 4 in "DTC P0171 / P0172: Fuel System Too Lean / Rich". If it is in good condition,	Repair leakage of exhaust system.
7	<p>Air intake system check</p> <p>1) Check air intake system for clog or leak. Is it OK?</p>	<p>go to Step 8.</p> <p>Replace HO2S-2 referring to "Heated Oxygen Sensor (HO2S-1 and HO2S-2) Removal and Installation (If Equipped) in Section 1C".</p> <p>If DTC still exists, substitute a known-good ECM and recheck.</p>	Repair or replace air intake system.