

ENGINE (DIAGNOSTICS)(H4DO) > Diagnostic Procedure with Diagnostic Trouble Code (DTC)

DTC P0138 O2 SENSOR CIRCUIT HIGH VOLTAGE (BANK 1 SENSOR 2)

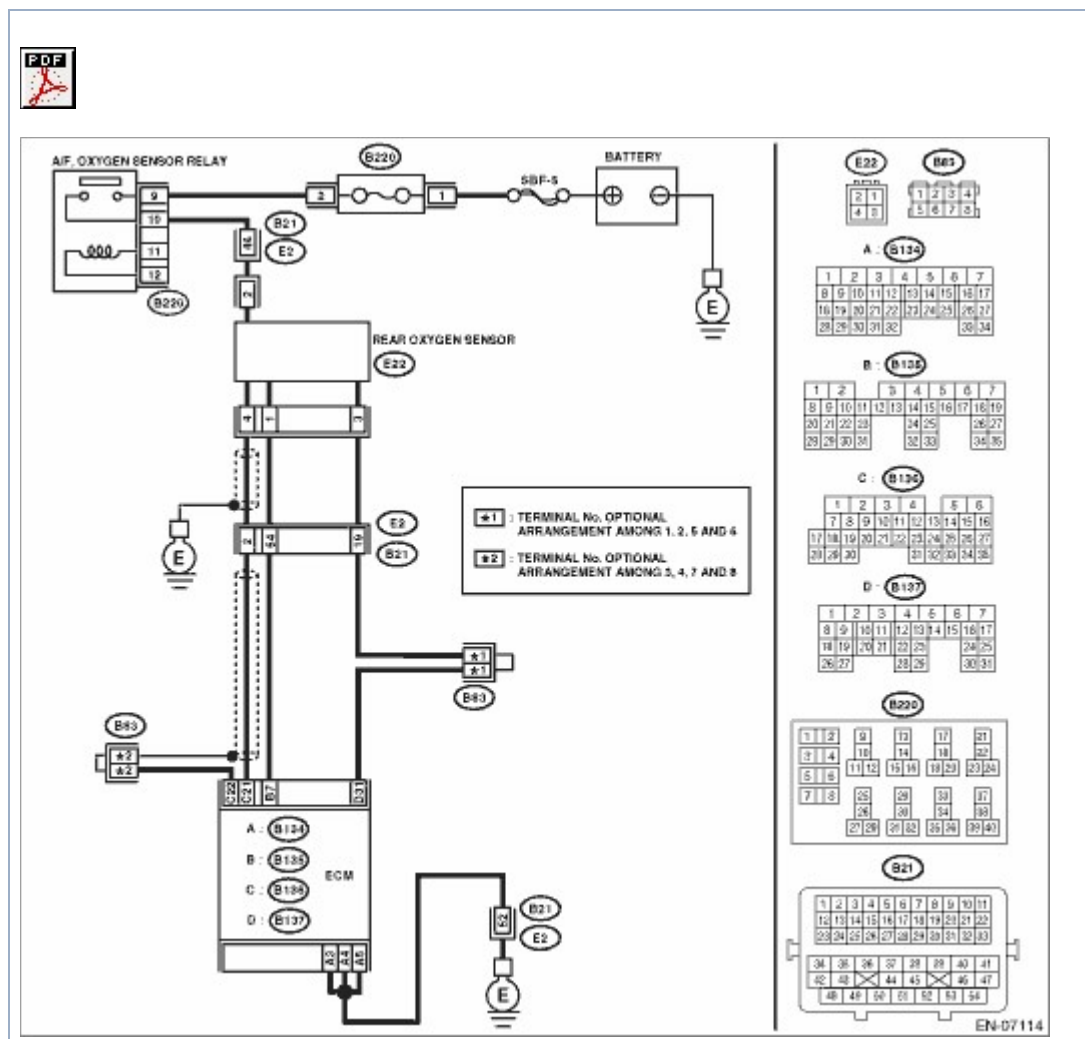
DTC DETECTING CONDITION:

Detected when two consecutive driving cycles with fault occur.

CAUTION:

After servicing or replacing faulty parts, perform **Clear Memory Mode** , and **Inspection Mode** .

WIRING DIAGRAM:



STEP	CHECK	YES	NO
1.CHECK REAR OXYGEN SENSOR DATA. 1) Warm up the engine until engine coolant temperature is higher than 75°C (167°F), and rapidly reduce the engine speed from 3,000 rpm. 2) Read the data of rear oxygen sensor signal using Subaru Select Monitor or general scan tool. NOTE: • Subaru Select Monitor	Is the voltage 250 mV or less?		

STEP	CHECK	YES	NO
For detailed operation procedures, refer to "READ CURRENT DATA FOR ENGINE".  • General scan tool For detailed operation procedures, refer to the general scan tool operation manual.			
2.CHECK REAR OXYGEN SENSOR CONNECTOR AND COUPLING CONNECTOR.	Has water entered the connector?	Completely remove any water inside.	
3.CHECK HARNESS BETWEEN ECM AND REAR OXYGEN SENSOR CONNECTOR. 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ECM and rear oxygen sensor. 3) Measure the resistance of harness between ECM and rear oxygen sensor connector. Connector & terminal (B136) No. 21 — (E22) No. 4: (B137) No. 31 — (E22) No. 3:	Is the resistance less than 1 Ω ?		Repair the open circuit of harness between ECM and rear oxygen sensor connector.
4.CHECK HARNESS BETWEEN ECM AND REAR OXYGEN SENSOR CONNECTOR. 1) Connect the connector to ECM. 2) Turn the ignition switch to ON. 3) Measure the voltage between rear oxygen sensor connector and chassis ground. Connector & terminal (E22) No. 4 (+) — Chassis ground (–):	Is the voltage 0.2 — 0.5 V?	Replace the rear oxygen sensor. 	Repair the harness and connector. NOTE: In this case, repair the following item: • Open circuit in harness between ECM and rear oxygen sensor connector • Poor contact of ECM connector • Poor contact of coupling connector
5.CHECK EXHAUST SYSTEM. Check exhaust system parts. NOTE: Check the following items. • Looseness and improper fitting of exhaust system parts • Damage (crack, hole etc.) of parts • Loose part and improper installation between front oxygen (A/F) sensor and rear oxygen sensor	Is there any fault in exhaust system?	Repair or replace faulty parts.	Replace the rear oxygen sensor. 