## ENGINE (DIAGNOSTICS)(H4DOTC) > Diagnostic Procedure with Diagnostic Trouble Code (DTC)

### DTC P0140 O2 SENSOR CIRCUIT NO ACTIVITY DETECTED (BANK 1 SENSOR 2)

**DTC DETECTING CONDITION:**

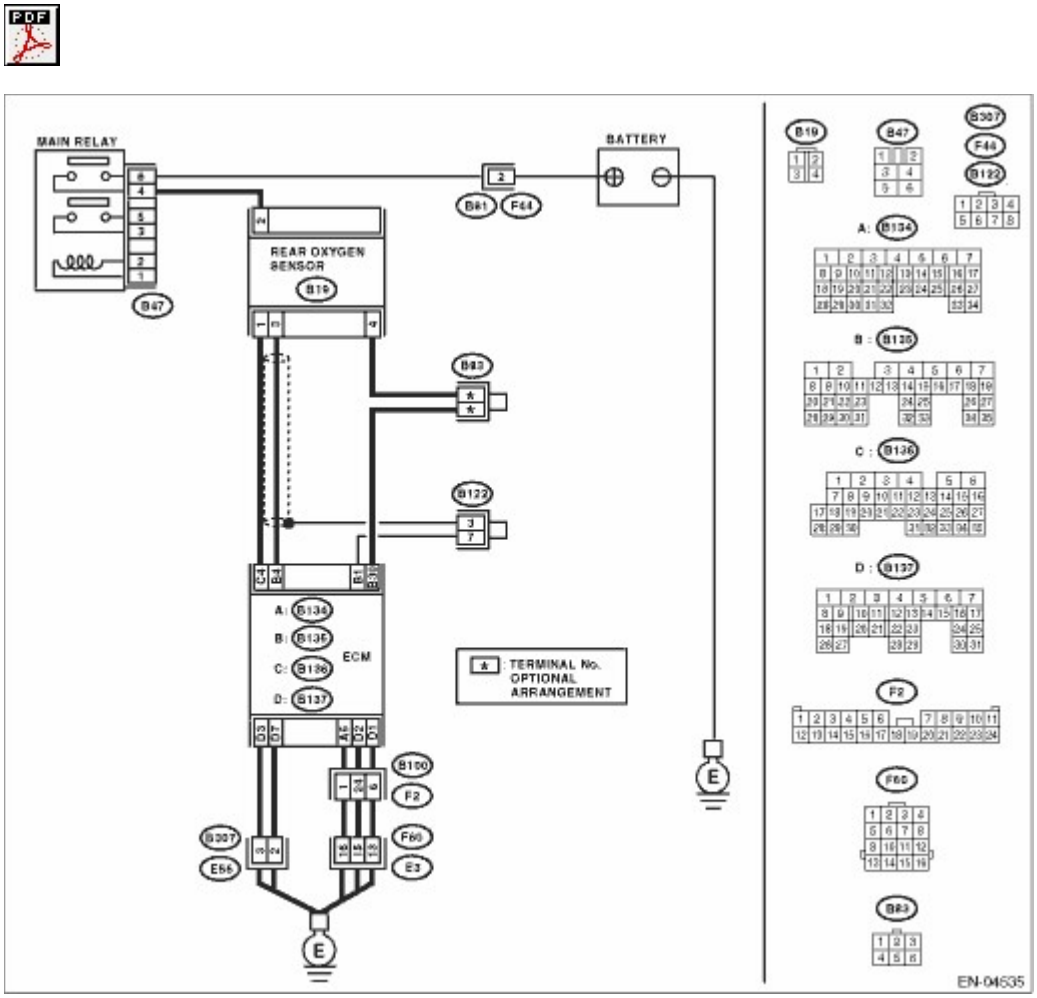
Detected when two consecutive driving cycles with fault occur.

**CAUTION:**

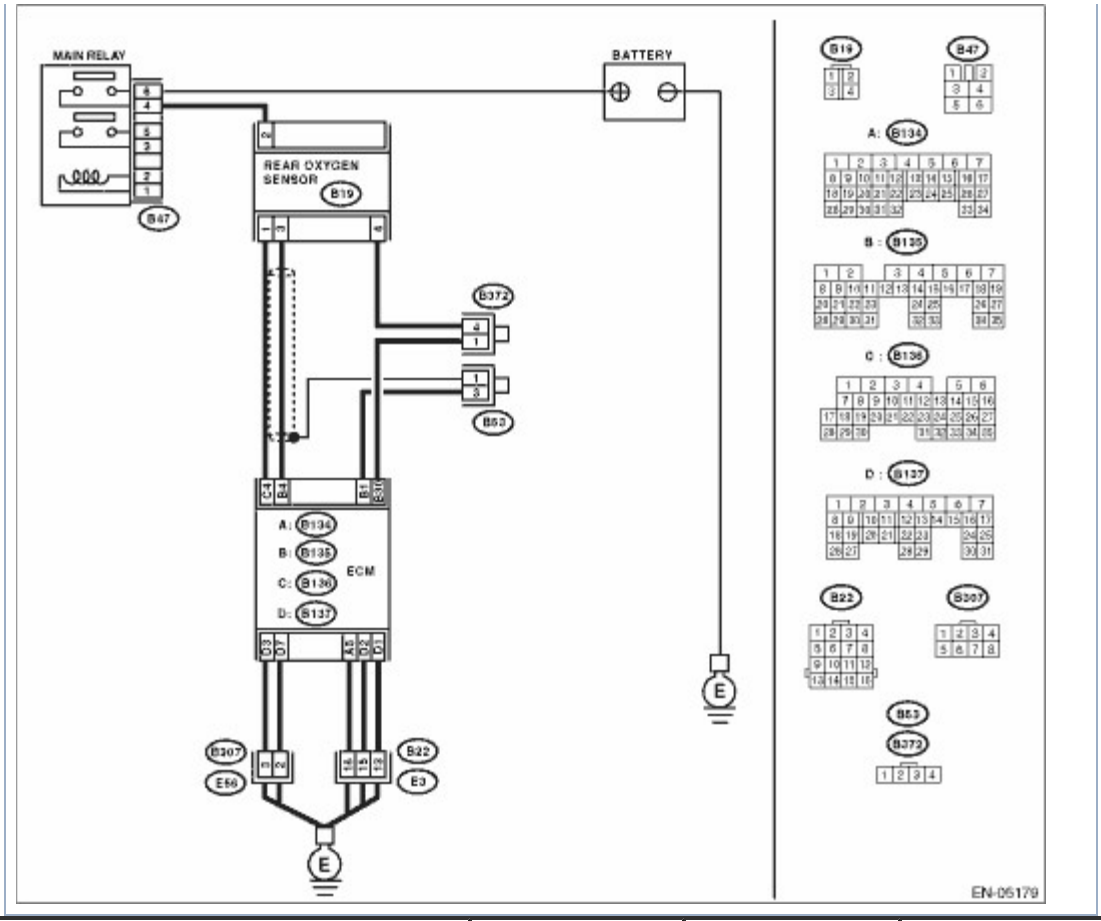
**After repairing or replacing the defective part, perform the Clear Memory Mode and Inspection Mode.**

**WIRING DIAGRAM:**

- LHD model




- RHD model




| STEP | CHECK | YES | NO |
|---|---|---|---|
| **1.CHECK REAR OXYGEN SENSOR DATA.**<br>1) Warm-up the engine until engine coolant temperature is above 70°C (158°F), and keep the engine speed at 3,000 rpm. (for up to 2 minutes)<br>2) Read the data of rear oxygen sensor signal using Subaru Select Monitor or general scan tool.<br>**NOTE:**<br>**• Subaru Select Monitor**<br>**For detailed operation procedure, refer to "READ CURRENT DATA FOR ENGINE".**<br>**• General scan tool**<br>**For detailed operation procedure, refer to the general scan tool operation manual.** | Is the voltage 490 mV or more? | | |
| **2.CHECK REAR OXYGEN SENSOR DATA.**<br>1) Warm-up the engine until engine coolant temperature exceeds 70°C (158°F), and drop the engine speed suddenly from 3,000 rpm. | Is the voltage 250 mV or less? | | |

| STEP | CHECK | YES | NO |
|---|---|---|---|
| 2) Read the data of rear oxygen sensor signal using Subaru Select Monitor or general scan tool.<br>**NOTE:**<br>**• Subaru Select Monitor**<br>**For detailed operation procedure, refer to "READ CURRENT DATA FOR ENGINE".**<br>**• General scan tool**<br>**For detailed operation procedure, refer to the general scan tool operation manual.** | | | |
| **3.CHECK REAR OXYGEN (A/F) SENSOR AND COUPLING CONNECTOR.** | Does water get into the connector? | Thoroughly remove the water. | |
| **4.CHECK HARNESS BETWEEN ECM AND REAR OXYGEN SENSOR CONNECTOR.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from ECM and rear oxygen sensor.<br>3) Measure the resistance of harness between ECM and rear oxygen sensor connector.<br>**Connector & terminal**<br>(B135) No. 4 — (B19) No. 3:<br>(B135) No. 30 — (B19) No. 4: | Is the resistance less than 1 Ω? | | Repair the open circuit of harness between ECM and rear oxygen sensor connector. |
| **5.CHECK HARNESS BETWEEN ECM AND REAR OXYGEN SENSOR.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from the rear oxygen sensor.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between rear oxygen sensor connector and chassis ground.<br>**Connector & terminal**<br>(B19) No. 4 (+) — Chassis ground (−): | Is the voltage 0.2 — 0.5 V? | Replace the rear oxygen sensor. | Repair the harness and connector.<br>**NOTE:**<br>**In this case, repair the following item:**<br>**• Open circuit of harness between the ECM and rear oxygen sensor**<br>**• Poor contact of rear oxygen sensor connector**<br>**• Poor contact in ECM connector** |
| **6.CHECK EXHAUST SYSTEM.**<br>Check exhaust system parts.<br>**NOTE:**<br>**Check the following items.**<br>**• Looseness and improper fitting of exhaust system parts**<br>**• Damage (crack, hole etc.) of parts**<br>**• Looseness and improper fitting of parts 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. |