

P2127: Pedal Position Sensor (Sub) Circuit Low Input

Wiring Diagram

Refer to "DTC P2122: Pedal Position Sensor (Main) Circuit Low Input".

DTC Detecting Condition and Trouble Area

| DTC detecting condition | Trouble area |
|--|--|
| Output voltage of APP sensor (sub) is lower than specified value. (1 driving detection logic) | <ul style="list-style-type: none">• APP sensor (sub) circuit• APP sensor assembly• ECM• Incorrect mounting of APP sensor assembly |

DTC Confirmation Procedure

- 1) With ignition switch turned OFF, connect scan tool.
- 2) Turn ON ignition switch and clear DTC using scan tool.
- 3) Keep the accelerator pedal at idle position for 2 seconds.
- 4) Keep the accelerator pedal at fully depressed position for 2 seconds.
- 5) Repeat Step 3) and 4) for 3 times.
- 6) Check 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 | APP sensor assembly mounting check 1) Check that APP sensor assembly has been mounted to vehicle body properly (no pinched floor carpet, etc.). Is it OK? | Go to Step 3. | Reinstall APP sensor assembly properly referring to "Accelerator Pedal Position (APP) Sensor Assembly Removal and Installation in Section 1C". |
| 3 | APP sensor (sub) and its circuit check 1) Connect scan tool to DLC with ignition switch turned OFF. 2) Turn ON ignition switch, check "APP Sensor 2 Volt" displayed on scan tool. Is displayed voltage below 0.179 V? | Go to Step 4. | Intermittent trouble. Check for intermittent referring to "Intermittent and Poor Connection Inspection in Section 00". |
| 4 | ECM voltage check 1) Disconnect connector from APP sensor assembly with ignition switch turned OFF. 2) Check for proper connection to APP sensor assembly at "RED", "YEL" and "WHT" wire terminals. 3) If OK, measure voltage between "RED" wire terminal of APP sensor assembly connector and vehicle body ground with ignition switch turned ON. Is voltage 4 – 6 V? | Go to Step 7. | Go to Step 5. |

| Step | Action | Yes | No |
|------|--|--|--|
| 5 | ECM voltage check 1) Turn OFF ignition switch. 2) Remove ECM from its bracket with ECM connectors connected. 3) Check for proper connection of ECM connector at "E01-34" terminal. 4) If OK, measure voltage between "E01-34" terminal of ECM connector and engine ground with ignition switch turned ON. Is voltage 4 – 6 V? | "RED" wire is open or high resistance circuit. | Go to Step 6. |
| 6 | Wire harness check 1) Disconnect connectors from ECM with ignition switch turned OFF. 2) Measure resistance between "E01-34" terminal of ECM connector and engine ground. Is resistance infinity? | Substitute a known-good ECM and recheck. | "RED" wire is shorted to ground circuit. |
| 7 | Wire harness check 1) Disconnect connectors from ECM with ignition switch turned OFF. 2) Check for proper connection of ECM connector at "E01-36", "E01-52" and "E01-51" terminals. 3) If OK, measure resistance between "YEL" wire terminal of APP sensor assembly connector and vehicle body ground. Is resistance infinity? | Go to Step 8. | "YEL" wire is shorted to ground circuit. |
| 8 | Wire harness check 1) Measure resistance between "E01-36" and each "E01-52", "E01-51", "E01-50" terminals of ECM connector with ignition switch turned OFF. Is each resistance infinity? | Go to Step 9. | "YEL" wire is shorted to "BLU" wire and/or "WHT" wire and/or "E01-50" circuit. |

| Step | Action | Yes | No |
|------|--|--|--|
| 9 | Wire harness check 1) Measure resistance between "YEL" wire terminal of APP sensor assembly connector and "E01-36" terminal of ECM connector with ignition switch turned OFF. Is resistance below 5 Ω ? | Go to Step 10. | "YEL" wire is open or high resistance circuit. |
| 10 | APP sensor assembly check 1) Check APP sensor (sub) referring to "Accelerator Pedal Position (APP) Sensor Assembly Inspection in Section 1C". Is output voltage within specified value? | Substitute a known-good ECM and recheck. | Replace APP sensor assembly. |

LAUNCH