

P0112 Intake Air Temperature Sensor Circuit Low

Wiring Diagram

Refer to "DTC P0111: Intake Air Temperature Circuit Range / Performance".

DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble area
Voltage of IAT sensor output is less than specified value with engine running. (High intake air temperature (low voltage / low resistance)) (1 driving cycle detection logic)	<ul style="list-style-type: none"> • IAT sensor circuit • IAT sensor • ECM

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 run it for 10 sec.
- 4) Check DTC and pending DTC.

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	IAT sensor and its circuit check 1) Connect scan tool to DLC with ignition switch turned OFF. 2) Turn ON ignition switch. 3) Check intake air temp. displayed on scan tool. Is 119 °C (246 °F) indicated?	Go to Step 3.	Intermittent trouble. Check for intermittent referring to "Intermittent and Poor Connection Inspection in Section 00".

Step	Action	Yes	No
3	<p>ECM voltage check</p> <p>1) Disconnect connector from MAF and IAT sensor with ignition switch turned OFF.</p> <p>2) Check for proper connection to MAF and IAT sensor at "BLK/YEL" and "GRY/BLU" wire terminals.</p> <p>3) If OK, then turn ON ignition switch, measure voltage between "BLK/YEL" wire terminal of MAF and IAT sensor connector (1) and vehicle body ground.</p> <p>Is voltage about 4 – 6 V?</p>	Go to Step 6.	Go to Step 4.
4	<p>IAT short circuit check</p> <p>1) Disconnect connectors from ECM with ignition switch turned OFF.</p> <p>2) Measure resistance between "BLK/YEL" wire terminal of MAF and IAT sensor connector and vehicle body ground.</p> <p>Is resistance infinity?</p>	Go to Step 5.	"BLK/YEL" wire is shorted to ground circuit. If wire is OK, substitute a known-good ECM and recheck.
5	<p>IAT short circuit check</p> <p>1) Turn ON ignition switch.</p> <p>2) Measure voltage between "BLK/YEL" wire terminal of MAF and IAT sensor connector and vehicle body ground.</p> <p>Is voltage about 0 V?</p>	Go to Step 6.	"BLK/YEL" wire is shorted to other circuit. If wire is OK, substitute a known-good ECM and recheck.
6	<p>IAT sensor for performance check</p> <p>1) Check IAT sensor according to "Intake Air Temperature (IAT) Sensor Inspection in Section 1C".</p> <p>Is it in good condition?</p>	Substitute a known-good ECM and recheck.	Replace MAF and IAT sensor.