

DTC P0111 [LF]

B3E010201084W10

DTC P0111	IAT circuit range/performance problem
DETECTION CONDITION	<ul style="list-style-type: none"> If the intake air temperature is higher than the engine coolant temperature by 40 °C {104 °F} with key on, the PCM determines that there is a IAT sensor performance problem. Diagnostic support note <ul style="list-style-type: none"> This is a continuous monitor (CCM). The MIL illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle. FREEZE FRAME DATA is available. DTC is stored in PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> IAT sensor malfunction Poor connection at MAF/IAT sensor or PCM connector PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED • Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record the FREEZE FRAME DATA on repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify for related service repair information availability. • Is any related repair information available?	Yes Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No Go to the next step.
3	INSPECT POOR CONNECTION OF MAF/IAT SENSOR CONNECTOR • Turn the ignition switch off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes Repair or replace the terminal, then go to Step 6.
		No Go to the next step.
4	INSPECT IAT SENSOR • Inspect the IAT sensor. (See INTAKE AIR TEMPERATURE (IAT) SENSOR INSPECTION [LF]) • Is the IAT sensor normal?	Yes Replace the MAF/IAT sensor, then go to Step 6.
		No Go to the next step.
5	INSPECT POOR CONNECTION OF PCM CONNECTOR • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes Repair or replace the terminal, then go to Step 6.
		No Go to the next step.
6	VERIFY TROUBLESHOOTING OF DTC P0111 COMPLETED • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using	Yes Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [LF] .)

	the WDS or equivalent. • Start the engine and run the engine under FREEZE FRAME DATA condition. • Is the PENDING CODE for this DTC present?	No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE • Perform the "After Repair Procedure". (See AFTER REPAIR PROCEDURE [LF] .) • Are any DTC present?	Yes	Go to the applicable DTC troubleshooting. (See DTC TABLE [LF] .)
		No	Troubleshooting completed.