

DTC P0113 [LF]

B3E010201084W12

DTC P0113	IAT sensor circuit high input
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the input voltage from the IAT sensor if input voltage at PCM terminal 1AH is above 4.8 V, the PCM determines that IAT sensor circuit has malfunction. Diagnostic support note This is a continuous monitor (CCM). The MIL illuminates if the PCM detects the above malfunction condition during first drive cycle. PENDING CODE is available if the PCM detects the above malfunction condition. FREEZE FRAME DATA is available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> IAT sensor malfunction Open circuit in wiring harness between MAF/IAT sensor terminal D and PCM terminal 1AH Short to power supply in wiring harness between MAF/IAT sensor terminal D and PCM terminal 1AH Open circuit in wiring harness between MAF/IAT sensor terminal E and PCM terminal 1AA Poor connection at MAF/IAT sensor or PCM connector PCM malfunction
<div style="text-align: center;"> </div>	

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 the repair order, then go to the next step.

2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify 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 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 replace the wiring terminal, then go to Step 9.
		No	Go to the next step.
4	CLASSIFY IAT SENSOR MALFUNCTION OR WIRING HARNESS MALFUNCTION • Connect the WDS or equivalent to DLC-2. • Access IAT PID. • Connect a jumper wire between MAF/IAT sensor terminals D and E. • Verify IAT value • Is the voltage below 4.8 V ?	Yes	Replace the MAF/IAT sensor, then go to Step 9.
		No	Go to the next step.
5	INSPECT IAT SENSOR SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between MAF/IAT sensor terminal D (wiring harness-side) and body ground. • Is the voltage B+ ?	Yes	Repair or replace the wiring harness for short to power supply, then go to Step 9.
		No	Go to the next step.
6	INSPECT POOR CONNECTION OF PCM CONNECTOR • Turn the ignition switch off. • Disconnect the PCM connector. • Inspect PCM terminals 1AH and 1AA (wiring harness-side) for tightness using feeler tool. • Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 10.
		No	Go to the next step.
7	INSPECT IAT SENSOR SIGNAL CIRCUIT FOR OPEN CIRCUIT • Inspect for continuity between MAF/IAT sensor terminal D (wiring harness-side) and PCM terminal 1AH. • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for open circuit, then go to Step 10.
8	INSPECT IAT SENSOR GROUND CIRCUIT FOR OPEN CIRCUIT • Inspect for continuity between MAF/IAT sensor terminal E (harness-side) and PCM terminal 1AA. • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for open circuit, then go to the next step.
9	VERIFY TROUBLESHOOTING OF DTC P0113 COMPLETED • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine. • Is the same DTC present?	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [LF] .)
		No	Go to the next step.
10	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.