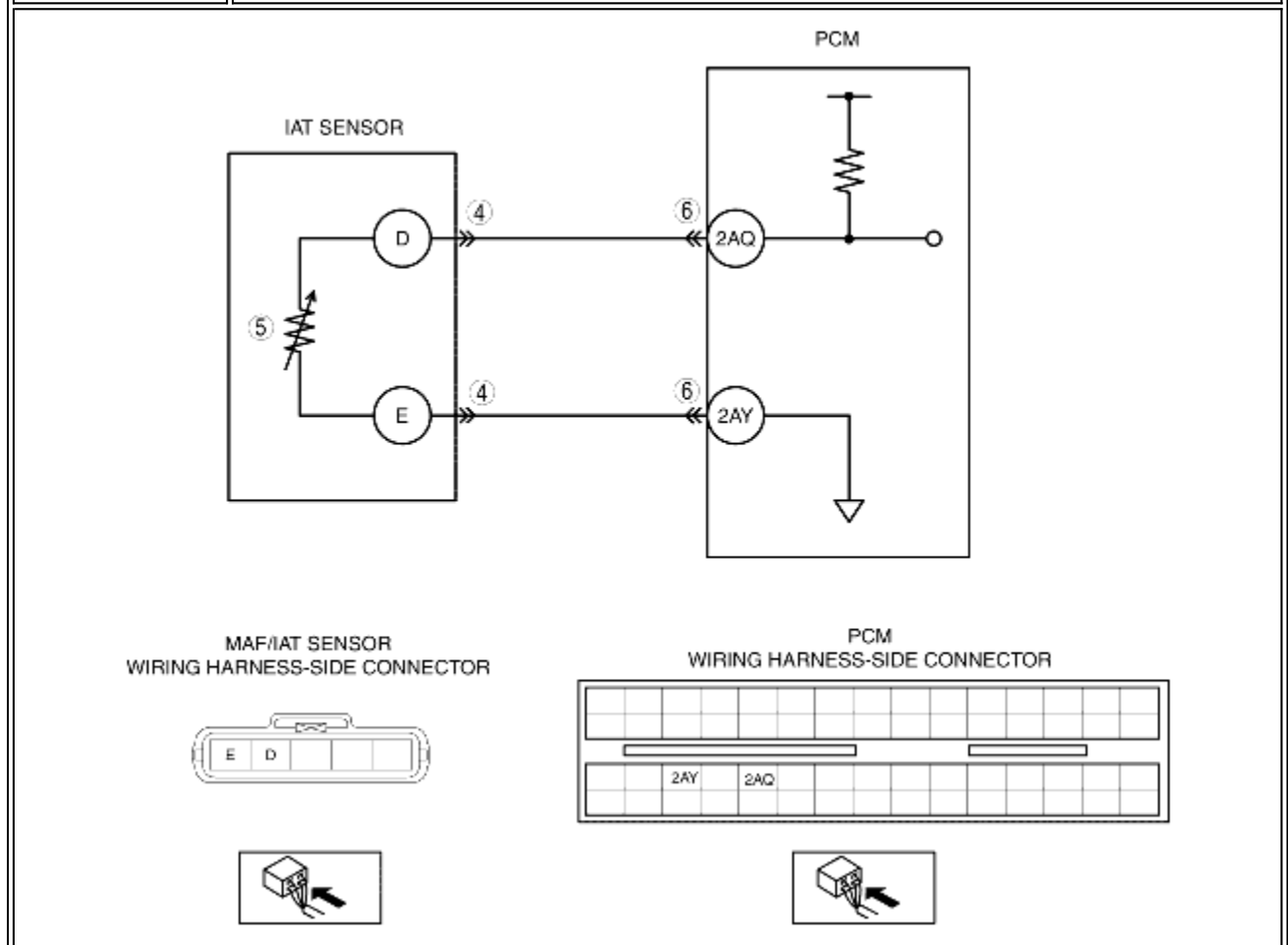


DTC P0111 [ZJ, Z6]

B3E010200100W03

DTC P0111	IAT sensor circuit range/performance problem
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM compares the IAT with the ECT when the engine is running. If the IAT is higher than the ECT by 40 °C {104 °F}, the PCM determines that there is an IAT sensor circuit range/performance problem. <p>Diagnostic support note</p> <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 the first drive cycle. FREEZE FRAME DATA is available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> IAT sensor malfunction Connector or terminal malfunction PCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED	Yes: Go to the next step.
	• Has FREEZE FRAME DATA been	Record the FREEZE FRAME DATA on the repair order,

	recorded?	No	then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY <ul style="list-style-type: none"> • 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	VERIFY RELATED PENDING CODE OR STORED DTC <ul style="list-style-type: none"> • Turn the ignition switch off, then to the ON position (Engine off). • Verify the related PENDING CODE or stored DTCs. • Are other DTCs present? 	Yes	Go to the appropriate DTC inspection. (See DTC TABLE [ZJ, Z6] .)
		No	Go to the next step.
4	INSPECT MAF/IAT SENSOR CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • 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 7.
		No	Go to the next step.
5	INSPECT IAT SENSOR <ul style="list-style-type: none"> • Inspect the IAT sensor. (See INTAKE AIR TEMPERATURE (IAT) SENSOR INSPECTION [ZJ, Z6].) • Is there any malfunction? 	Yes	Replace the MAF/IAT sensor, then go to Step 7. (See MASS AIR FLOW (MAF)/INTAKE AIR TEMPERATURE (IAT) SENSOR REMOVAL/INSTALLATION [ZJ, Z6] .)
		No	Go to the next step.
6	INSPECT PCM CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Turn the ignition switch off. • 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 the next step.
		No	Go to the next step.
7	VERIFY TROUBLESHOOTING OF DTC P0111 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine and warm it up completely. • Is the PENDING CODE for this DTC present? 	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6] .)
		No	Go to the next step.
8	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [ZJ, Z6].) • Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ZJ, Z6] .)
		No	DTC troubleshooting completed.