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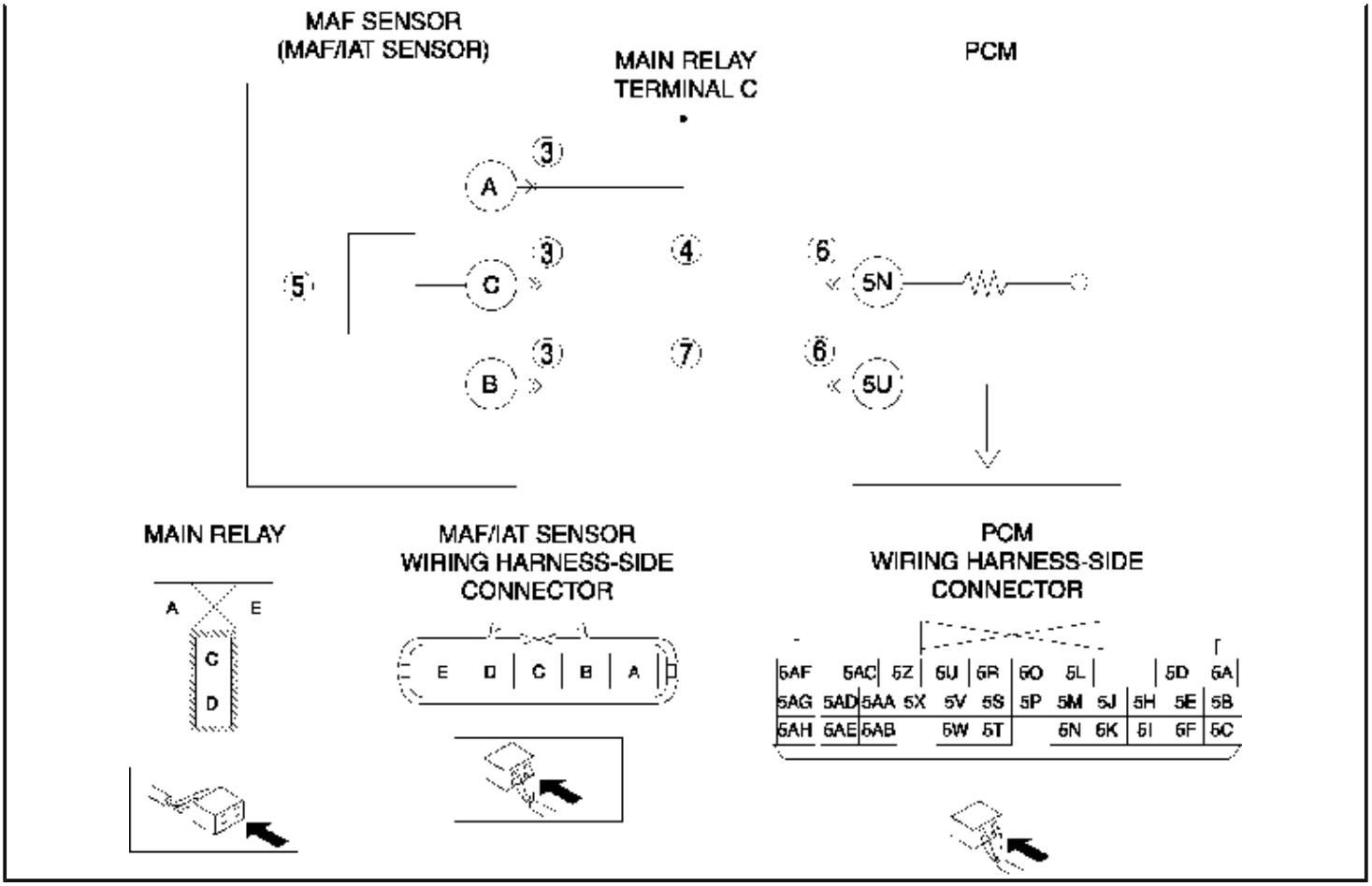
2004 - RX8 - Workshop Manual - Engine

DTC P0103

DTC P0103	MAF sensor circuit high input
DETECTION CONDITION	• The PCM monitors the input voltage from the MAF sensor when the engine is running. If the input voltage is **more than 5.0 V**, the PCM determines that the MAF sensor circuit input voltage is high. **Diagnostic support note** • This is a continuous monitor (CCM). • The MIL illuminates if the PCM detects the above malfunction condition in the 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	• MAF sensor malfunction • Connector or terminal malfunction • Short to power supply in wiring harness between MAF/IAT sensor terminal C and PCM terminal 5N • Open circuit in wiring harness between MAF/IAT sensor terminal B and PCM terminal 5U • 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 the repair order, then go to the next step.
2	**VERIFY RELATED REPAIR INFORMATION AVAILABILITY** • Verify related Service Bulletins and/or on-line 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 MAF/IAT SENSOR CONNECTOR FOR POOR CONNECTION** • Turn the ignition switch off.	Yes	Repair or replace the terminal, then go to Step 8.

	• Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	No	Go to the next step.
4	**INSPECT MAF 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 C (wiring harness-side) and body GND. • Is the voltage **B+** ?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 8.
		No	Go to the next step.
5	**INSPECT MAF SENSOR** • Inspect the MAF sensor. (See **MASS AIR FLOW (MAF) SENSOR INSPECTION**.) • Is there any malfunction ?	Yes	Replace the MAF/IAT sensor, then go to Step 8. (See **MASS AIR FLOW (MAF)/INTAKE AIR TEMPERATURE (IAT) SENSOR REMOVAL/INSTALLATION**.)
		No	Go to the next step.
6	**INSPECT PCM CONNECTOR FOR POOR CONNECTION** • 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 Step 8.
		No	Go to the next step.
7	**INSPECT MAF SENSOR GND CIRCUIT FOR OPEN CIRCUIT** • Turn the ignition switch off. • Inspect for continuity between MAF/IAT sensor terminal B (wiring harness-side) and PCM terminal 5U (wiring harness-side). • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

8	**VERIFY TROUBLESHOOTING OF DTC P0103 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**.)
		No	Go to the next step.
9	**VERIFY AFTER REPAIR PROCEDURE** • Perform the "AFTER REPAIR PROCEDURE". (See **AFTER REPAIR PROCEDURE**.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE**.)
		No	DTC troubleshooting completed.

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