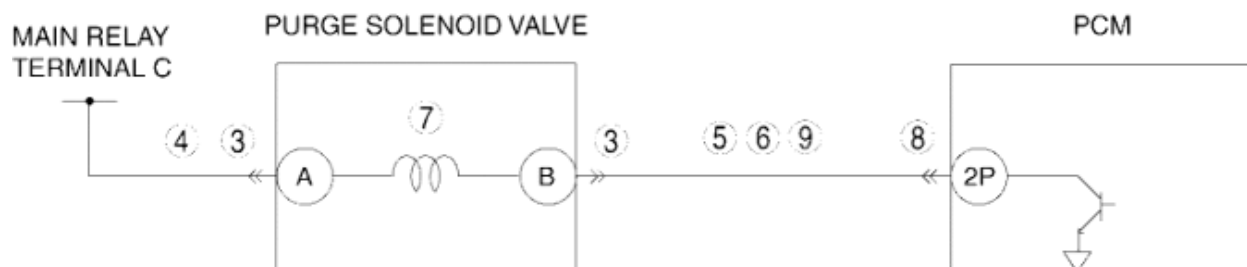


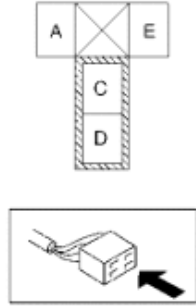
2005 - RX8 - Workshop Manual - Engine

DTC P0443

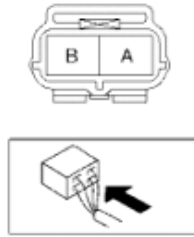
DTC P0443	Purge solenoid valve circuit problem
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the purge solenoid valve control voltage when the PCM turns the purge solenoid valve off. If the control voltage is less than 5.8 V, the PCM determines that the purge solenoid valve control circuit voltage is low. The PCM monitors the purge solenoid valve control voltage when the PCM turns the purge solenoid valve on. If the control voltage is more than 11.5 V, the PCM determines that the purge solenoid valve control circuit voltage is high. <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"> Purge solenoid valve malfunction Connector or terminal malfunction Open circuit in wiring harness between main relay terminal C and purge solenoid valve terminal A Short to ground in wiring harness between main relay terminal C and purge solenoid valve terminal A Open circuit in wiring harness between purge solenoid valve terminal B and PCM terminal 2P Short to power supply in wiring harness between purge solenoid valve terminal B and PCM terminal 2P Short to ground in wiring harness between purge solenoid valve terminal B and PCM terminal 2P PCM malfunction



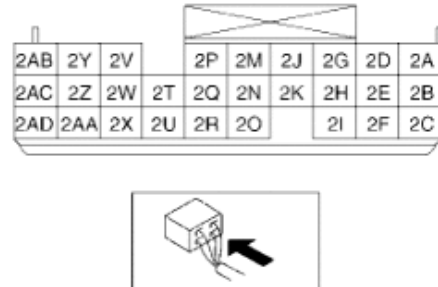
MAIN RELAY



PURGE SOLENOID VALVE WIRING HARNESS-SIDE CONNECTOR



PCM WIRING HARNESS-SIDE CONNECTOR



Diagnostic procedure

STEP	INSPECTION	ACTION	
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	INSPECT PURGE SOLENOID VALVE CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> Turn the ignition switch off. Disconnect the purge solenoid valve 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 10.
		No	Go to the next step.
4	INSPECT PURGE SOLENOID VALVE POWER CIRCUIT FOR OPEN CIRCUIT OR SHORT TO GROUND <ul style="list-style-type: none"> Turn the ignition switch to the ON position (Engine off). Measure the voltage between purge solenoid valve terminal A (wiring harness-side) and body ground. Is the voltage B+? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit or short to ground, then go to Step 10.
5	INSPECT PURGE SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Turn the ignition switch off. 	Yes	Repair or replace harness for short to ground, then go to Step 10.

	<ul style="list-style-type: none"> • Turn the ignition switch on. • Inspect for continuity between purge solenoid valve terminal B (wiring harness-side) and body ground. • Is there continuity? 	No	Go to the next step.
6	INSPECT PURGE SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between purge solenoid valve terminal B (wiring harness-side) and body ground. • Is the voltage B+? 	Yes	Repair or replace harness for short to power supply, then go to Step 10.
		No	Go to the next step.
7	INSPECT PURGE SOLENOID VALVE <ul style="list-style-type: none"> • Inspect the purge solenoid valve. (See PURGE SOLENOID VALVE INSPECTION.) • Is there any malfunction ? 	Yes	Replace the purge solenoid valve, then go to Step 10. (See INTAKE-AIR SYSTEM HOSE ROUTING DIAGRAM.)
		No	Go to the next step.
8	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 Step 10.
		No	Go to the next step.
9	INSPECT PURGE SOLENOID VALVE CONTROL CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Turn the ignition switch off. • Inspect for continuity between purge solenoid valve terminal B (wiring harness-side) and PCM terminal 2P (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.
10	VERIFY TROUBLESHOOTING OF DTC P0443 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. • Is the PENDING CODE same as DTC present? 	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION.)
		No	Go to the next step.
11	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • 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.

