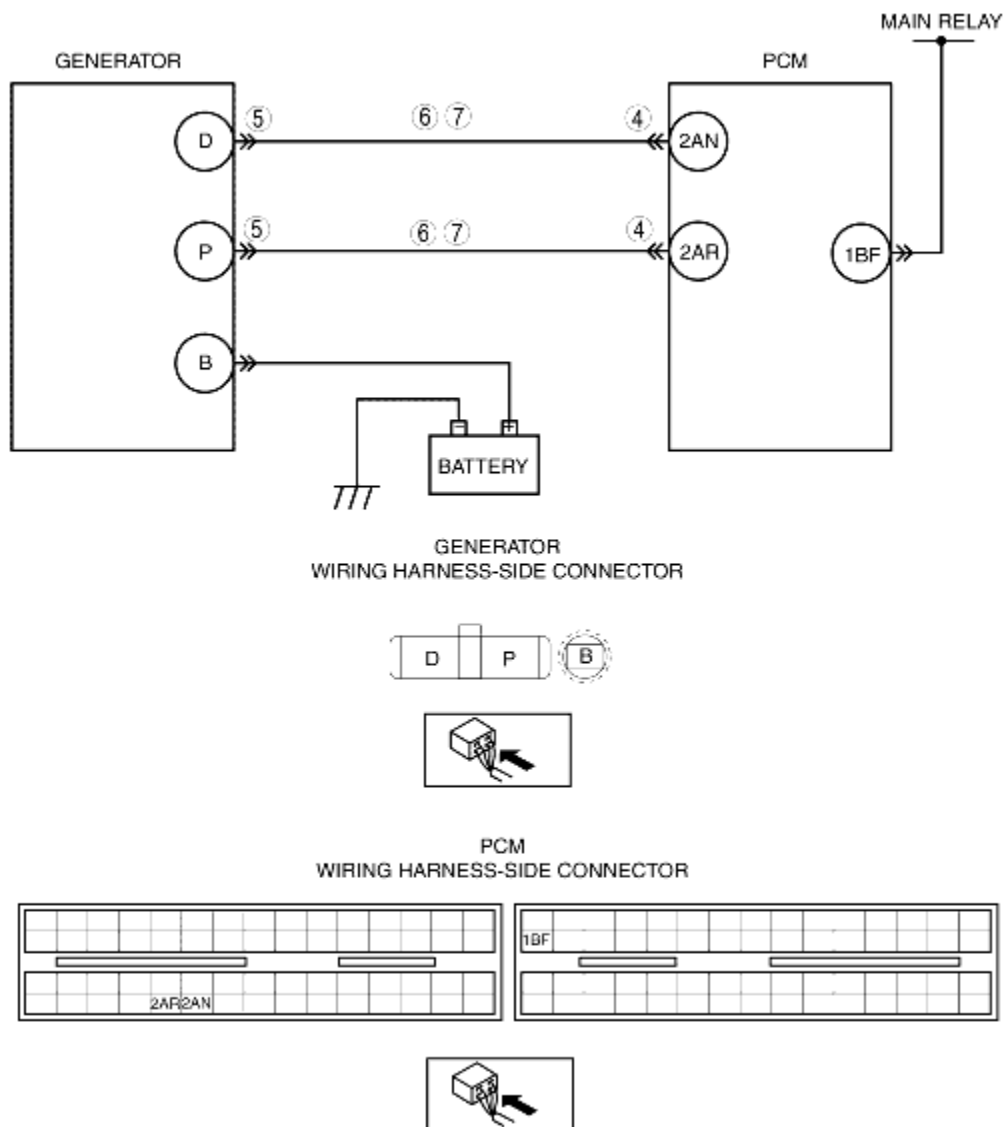


DTC P2503 [ZJ, Z6]

B3E010202500W02

DTC P2503	Charging system voltage low
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM needs more than 20 A from the generator, and determines that the generator output voltage is less than 8.5 V while the engine running.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Generator malfunction Drive belt misadjustment Connector or terminal malfunction Open circuit in wiring harness between generator terminal D and PCM terminal 2AN Short to GND in wiring harness between generator terminal D and PCM terminal 2AN Open circuit in wiring harness between generator terminal P and PCM terminal 2AR Short to GND in wiring harness between generator terminal P and PCM terminal 2AR 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 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 DRIVE BELT CONDITION • Verify that the drive belt auto tensioner indicator mark does not exceed the limit. (See DRIVE BELT INSPECTION [ZJ, Z6] .) • Is the drive belt normal?	Yes	Go to the next step.
		No	Replace and/or adjust the drive belt, then go to Step 8. (See DRIVE BELT REPLACEMENT [ZJ, Z6] .)
4	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.
5	INSPECT GENERATOR CONNECTOR FOR POOR CONNECTION • Turn the ignition switch off. • Disconnect the generator 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.
6	INSPECT GENERATOR CIRCUIT FOR SHORT TO GND • Turn the ignition switch to the ON position (Engine off). • Inspect for continuity between the following terminals: - Generator terminal D (wiring harness-side) and body GND - Generator terminal P (wiring harness-side) and body GND • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to GND, then go to Step 8.
		No	Go to the next step.
7	INSPECT GENERATOR CIRCUIT FOR OPEN CIRCUIT • Turn the ignition switch off. • Inspect for continuity between the following terminals: - Generator terminal D (wiring harness-side) and PCM terminal 2AN (wiring harness-side) - Generator terminal P (wiring harness-side) and PCM terminal 2AR (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 P2503 COMPLETED • Make sure to reconnect all disconnected connectors.	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6] .)

	<ul style="list-style-type: none"> • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine. • Is same DTC present? 	No	Go to the next step.
9	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.