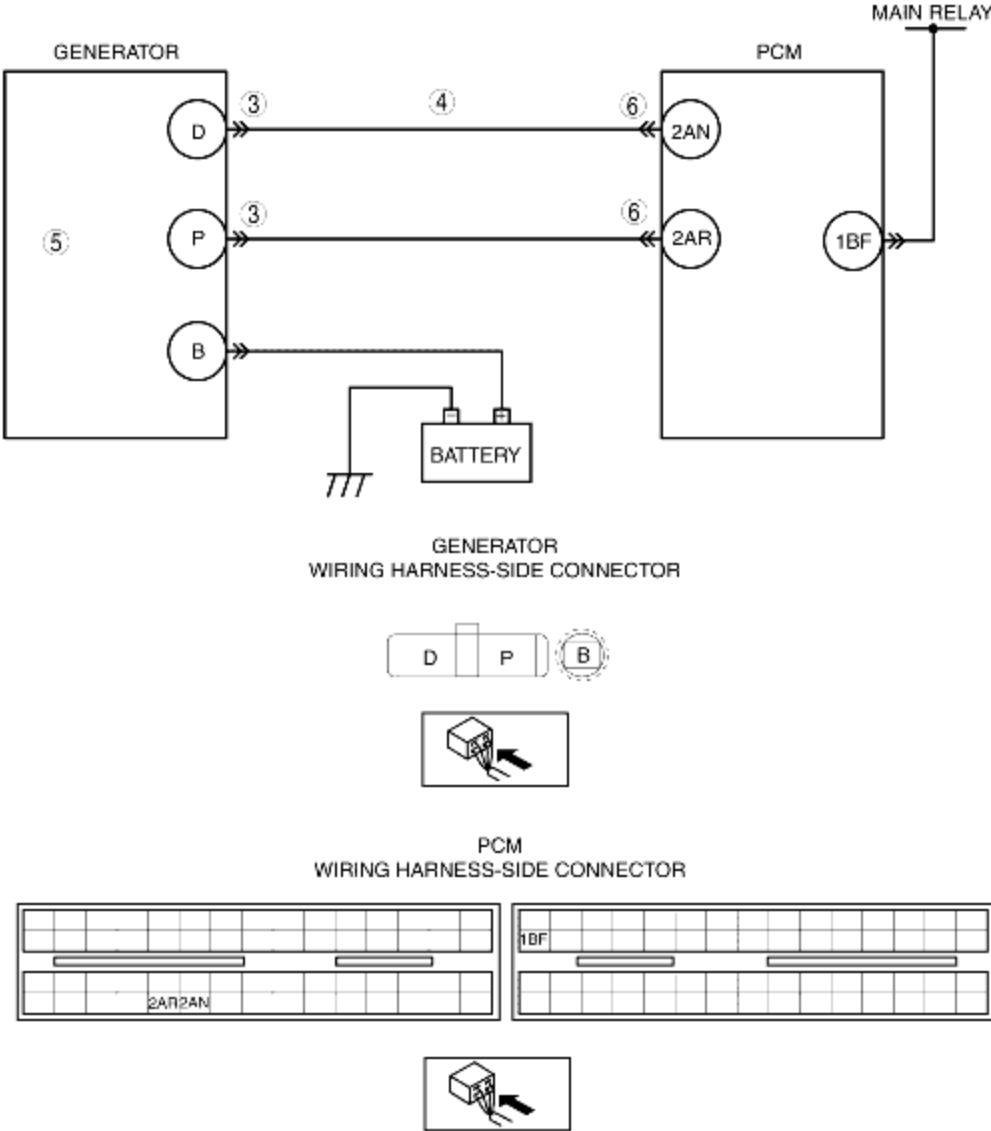


## DTC P2504 [ZJ, Z6]

B3E010202500W03

DTC P2504	Charging system voltage high
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>The PCM determines that the generator output voltage is <b>more than 18.5 V</b> or battery voltage is <b>more than 16.0 V</b> while the engine running.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Short to power supply in wiring harness between generator connector terminal D and PCM connector terminal 2AN</li> <li>Generator malfunction</li> <li>PCM and/or generator are poorly connected.</li> </ul>
 <p>The diagram illustrates the electrical system for the charging system voltage high (DTC P2504). It shows the generator (5) with terminals D, P, and B. The battery is connected to the B terminal. The PCM has terminals 2AN, 2AR, and 1BF. The main relay is connected to the 1BF terminal. The generator wiring harness-side connector has terminals D, P, and B. The PCM wiring harness-side connector has terminals 2AN and 1BF. A short circuit is indicated between the generator terminal D and the PCM terminal 2AN.</p>	

### Diagnostic procedure

STEP	INSPECTION	ACTION

1	<b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> • 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	<b>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</b> • 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	<b>INSPECT GENERATOR CONNECTOR FOR POOR CONNECTION</b> • 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 7.
		No	Go to the next step.
4	<b>INSPECT GENERATOR CONTROL TERMINAL FOR SHORT TO POWER SUPPLY</b> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between generator terminal D (wiring harness-side) and body GND. • Is the voltage <b>B+</b> ?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 7.
		No	Go to the next step.
5	<b>INSPECT GENERATOR</b> • Inspect the generator. (See <a href="#">GENERATOR INSPECTION [ZJ, Z6].</a> ) • Is there any malfunction?	Yes	Replace the generator, then go to Step 7. (See <a href="#">GENERATOR REMOVAL/INSTALLATION [ZJ, Z6].</a> )
		No	Go to the next step.
6	<b>INSPECT PCM CONNECTOR FOR POOR CONNECTION</b> • 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 next step.
		No	Go to the next step.
7	<b>VERIFY TROUBLESHOOTING OF DTC P2504 COMPLETED</b> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine. • Is same DTC present?	Yes	Replace the PCM, then go to the next step. (See <a href="#">PCM REMOVAL/INSTALLATION [ZJ, Z6].</a> )
		No	Go to the next step.
8	<b>VERIFY AFTER REPAIR PROCEDURE</b> • Perform the "AFTER REPAIR PROCEDURE". (See <a href="#">AFTER REPAIR PROCEDURE [ZJ, Z6].</a> ) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See <a href="#">DTC TABLE [ZJ, Z6].</a> )
		No	DTC troubleshooting completed.