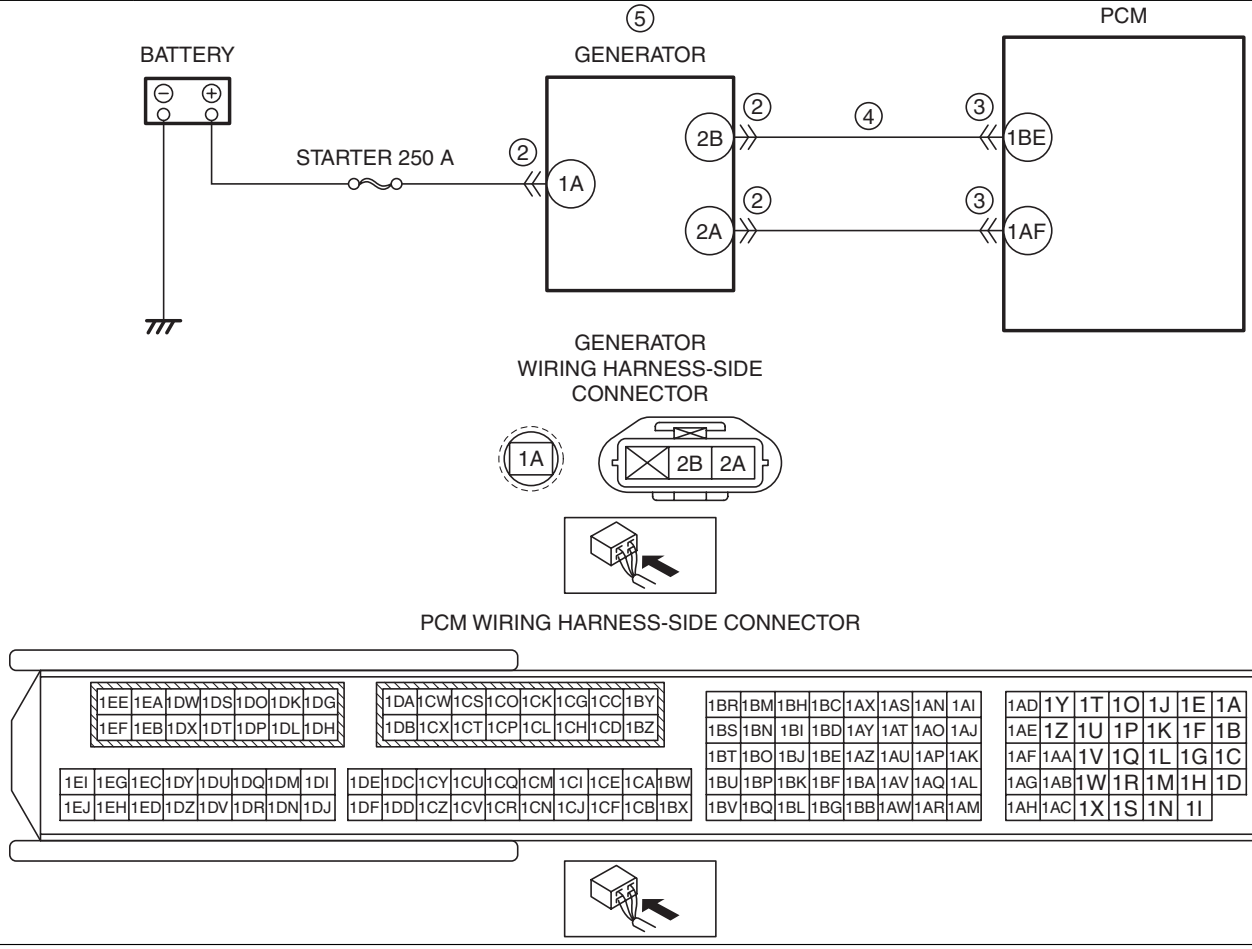
## DTC P2504:00 [SKYACTIV-G 2.0]

id0102h1709700

| DTC P2504:00 | Charging system voltage high input |
|---|---|
| DETECTION CONDITION | • The PCM determines that the generator output voltage is **more than 18.5 V**, or battery voltage is **more than 16.0 V**, for **5 s** while the engine is running.<br>**Diagnostic support note**<br>• This is a continuous monitor (other).<br>• The check engine light does not illuminate.<br>• FREEZE FRAME DATA (Mode 2)/Snapshot data is not available.<br>• The DTC is stored in the PCM memory. |
| FAIL-SAFE FUNCTION | • Illuminates the charging system warning light. |
| POSSIBLE CAUSE | • Generator connector or terminals malfunction<br>• PCM connector or terminals malfunction<br>• Short to power supply in wiring harness between generator terminal 2B and PCM terminal 1BE<br>• Generator malfunction<br>• PCM malfunction |




### Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 1 | **VERIFY RELATED SERVICE INFORMATION AVAILABILITY**<br>• Verify related Service Information availability.<br>• Is any related Service Information available? | Yes | Perform repair or diagnosis according to the available Service Information.<br>• If the vehicle is not repaired, go to the next step. |
| | | No | Go to the next step. |
| 2 | **INSPECT GENERATOR CONNECTOR CONDITION**<br>• Switch the ignition to off.<br>• Disconnect the generator connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• Is there any malfunction? | Yes | Repair or replace the connector and/or terminals, then go to Step 6. |
| | | No | Go to the next step. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 3 | **INSPECT PCM CONNECTOR CONDITION**<br>• Disconnect the PCM connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• Is there any malfunction? | Yes | Repair or replace the connector and/or terminals, then go to Step 6. |
| | | No | Go to the next step. |
| 4 | **INSPECT GENERATOR CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY**<br>• Verify that the generator and PCM connectors are disconnected.<br>• Switch the ignition ON (engine off or on).<br>• Measure the voltage at the generator terminal 2B (wiring harness-side).<br>• Is the voltage **0 V**? | Yes | Go to the next step. |
| | | No | Repair or replace the wiring harness for a possible short to power supply, then go to Step 6. |
| 5 | **INSPECT GENERATOR**<br>• Switch the ignition to off.<br>• Inspect the generator.<br>(See GENERATOR INSPECTION [SKYACTIV-G 2.0].)<br>• Is there any malfunction? | Yes | Repair or replace the malfunctioning part according to the inspection results, then go to the next step.<br>(See GENERATOR DISASSEMBLY/ASSEMBLY [SKYACTIV-G 2.0].)<br>(See GENERATOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0].) |
| | | No | Go to the next step. |
| 6 | **VERIFY DTC TROUBLESHOOTING COMPLETED**<br>• Make sure to reconnect all disconnected connectors.<br>• Clear the DTC from the PCM memory using the M-MDS.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].)<br>• Perform the KOER self test.<br>(See KOEO/KOER SELF TEST [SKYACTIV-G 2.0].)<br>• Is the same DTC present? | Yes | Repeat the inspection from Step 1.<br>• If the malfunction recurs, replace the PCM.<br>(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)<br>Go to the next step. |
| | | No | Go to the next step. |
| 7 | **VERIFY AFTER REPAIR PROCEDURE**<br>• Perform the “AFTER REPAIR PROCEDURE”.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].)<br>• Are any DTCs present? | Yes | Go to the applicable DTC inspection.<br>(See DTC TABLE [SKYACTIV-G 2.0].) |
| | | No | DTC troubleshooting completed. |