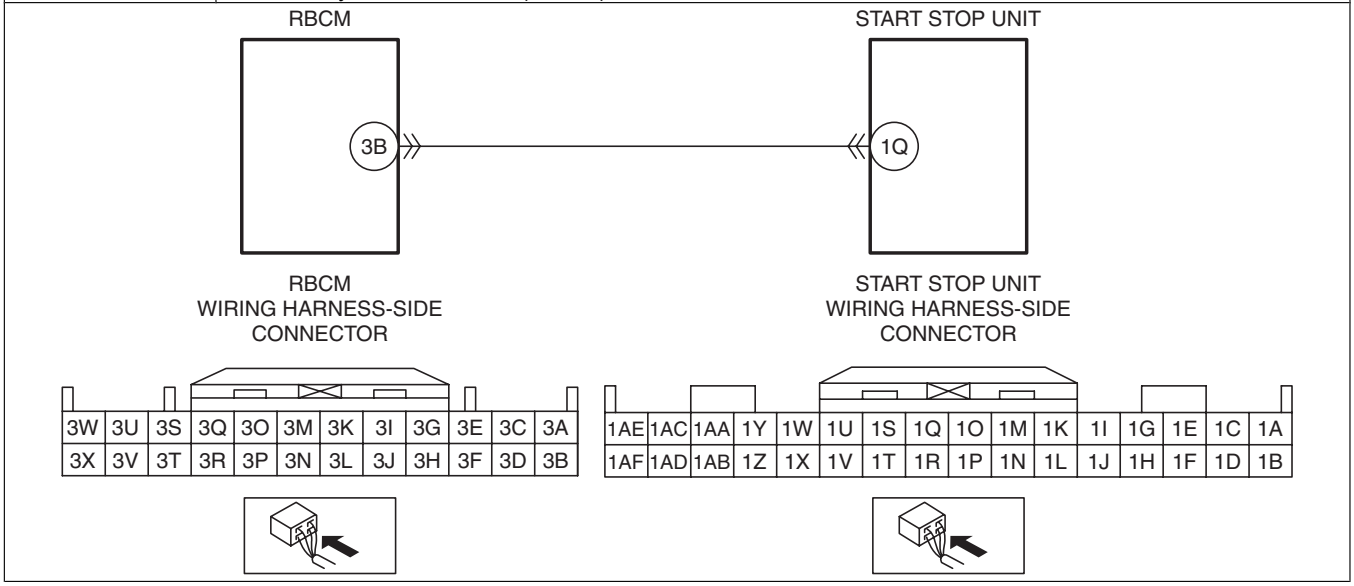
DTC B109E:87 [REAR BODY CONTROL MODULE (RBCM)]

id0902p4013000

System malfunction location	**Communication error with start stop unit**
Detection condition	• Rear body control module (RBCM) detects communication error with start stop unit for **10 times continuously**.
Fail-safe	—
Possible cause	• Start stop unit connector or terminal malfunction • Rear body control module (RBCM) connector or terminal malfunction • Short to ground in wiring harness between rear body control module (RBCM) terminal 3B and start stop unit terminal 1Q • Open circuit in wiring harness between rear body control module (RBCM) terminal 3B and start stop unit terminal 1Q • Start stop unit malfunction • Rear body control module (RBCM) malfunction



Diagnostic Procedure

Step	Inspection		Action
1	**VERIFY REAR BODY CONTROL MODULE (RBCM) DTCs AGAIN** • Clear rear body control module (RBCM) DTCs using the M-MDS. (See CLEARING DTC [REAR BODY CONTROL MODULE (RBCM)].) • Perform the DTC inspection for the rear body control module (RBCM) using the M-MDS. (See DTC INSPECTION [REAR BODY CONTROL MODULE (RBCM)].) • Is DTC B109E:87 displayed?	Yes	Go to the next step.
		No	Go to Step 8.

Step	Inspection		Action
2	**INSPECT START STOP UNIT CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Disconnect the start stop unit connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 7.
3	**INSPECT REAR BODY CONTROL MODULE (RBCM) CONNECTOR CONDITION** • Disconnect the rear body control module (RBCM) connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 7.
4	**INSPECT START STOP UNIT CIRCUIT FOR SHORT TO GROUND** • Verify that the rear body control module (RBCM) connector and start stop unit connector are disconnected. • Inspect for continuity between start stop unit terminal 1Q (vehicle wiring harness side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness which is shorted to ground, then go to Step 7.
		No	Go to the next step.
5	**INSPECT START STOP UNIT CIRCUIT FOR OPEN CIRCUIT** • Verify that the rear body control module (RBCM) connector and start stop unit connector are disconnected. • Inspect the wiring harness for an open circuit between rear body control module (RBCM) terminal 3B (vehicle wiring harness side) and start stop unit terminal 1Q (vehicle wiring harness side). • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness which has an open circuit, then go to Step 7.
6	**INSPECT START STOP UNIT** • Inspect the start stop unit. (See START STOP UNIT INSPECTION.) • Is the start stop unit normal?	Yes	Go to the next step.
		No	Replace the start stop unit, then go to the next step. (See START STOP UNIT REMOVAL/INSTALLATION.)

Step	Inspection		Action
7	**VERIFY THAT REPAIRS HAVE BEEN COMPLETED** • Reconnect all the disconnected connectors. • Reconnect the disconnected negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Clear rear body control module (RBCM) DTCs using the M-MDS. (See CLEARING DTC [REAR BODY CONTROL MODULE (RBCM)].) • Perform the DTC inspection for the rear body control module (RBCM) using the M-MDS. (See DTC INSPECTION [REAR BODY CONTROL MODULE (RBCM)].) • Is DTC B109E:87 displayed?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the rear body control module (RBCM), then go to the next step. (See REAR BODY CONTROL MODULE (RBCM) REMOVAL/INSTALLATION.)
		No	Go to the next step.
8	**VERIFY IF OTHER DTCs DISPLAYED** • Are any other DTCs displayed?	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [REAR BODY CONTROL MODULE (RBCM)].)
		No	DTC troubleshooting completed.