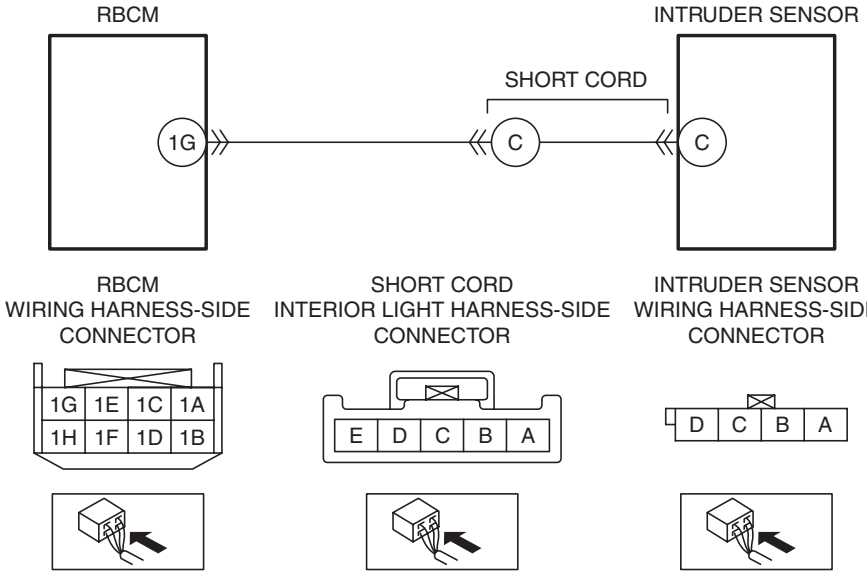
DTC B109F:87 [REAR BODY CONTROL MODULE (RBCM)]

id0902p4013300

System malfunction location	**Communication error with intruder sensor**
Detection condition	• Rear body control module (RBCM) cannot receive signal from intruder sensor for **1.5 s or more**.
Fail-safe	—
Possible cause	• Short cord 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 1G and short cord terminal C • Open circuit in wiring harness between rear body control module (RBCM) terminal 1G and short cord terminal C • Intruder sensor 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)].) • Switch the ignition ON (engine off or on) and wait for **3 s or more**. • 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 B109F:87 displayed?	Yes	Go to the next step.
		No	Go to Step 8.

Step	Inspection		Action
2	**SHORT CORD CONNECTOR INSPECTION** • 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 short cord 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 INTRUDER SENSOR CIRCUIT FOR SHORT TO GROUND** • Verify that the short cord and rear body control module (RBCM) connectors are disconnected. • Inspect for continuity between short cord terminal C (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 INTRUDER SENSOR CIRCUIT FOR OPEN CIRCUIT** • Verify that the short cord and rear body control module (RBCM) connectors are disconnected. • Inspect the wiring harness for an open circuit between rear body control module (RBCM) terminal 1G (vehicle wiring harness side) and short cord terminal C (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 INTRUDER SENSOR** • Inspect the intruder sensor. (See INTRUDER SENSOR INSPECTION.) • Is the intruder sensor normal?	Yes	Go to the next step.
		No	Replace the intruder sensor, then go to the next step. (See INTRUDER SENSOR 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)].) • Switch the ignition ON (engine off or on) and wait for **3 s or more**. • 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 B109F: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.