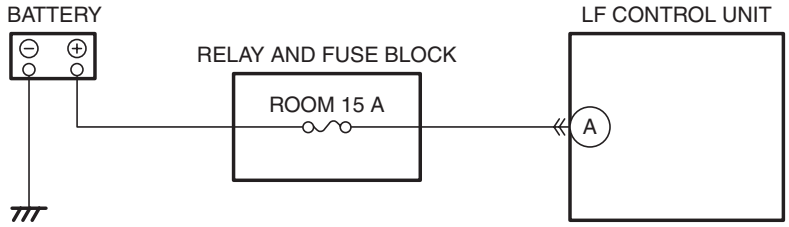
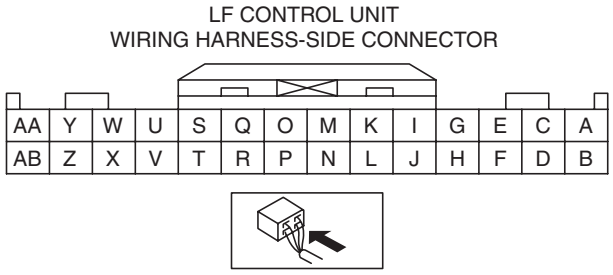
DTC B13C3:16 [ADVANCED KEYLESS ENTRY SYSTEM]

id0902p8027100

System malfunction location	**LF control unit power supply voltage decrease input**
Detection condition	• With the ignition switched ON (engine off), start stop unit power supply circuit (+B1) voltage of **8.5 V or more or less than 16.5 V** and LF control unit power supply circuit voltage of **5 V or more or less than 8.5 V** are detected for **5 s or more**.
Fail-safe	• Inhibits the door lock/unlock control using the advanced keyless entry system.
Possible cause	• LF control unit connector or terminal malfunction • LF control unit power supply circuit malfunction — Short to ground in the wiring harness between ROOM 15 A fuse and LF control unit terminal A — ROOM 15 A fuse malfunction — Open circuit in wiring harness between battery positive terminal and LF control unit terminal A • LF control unit malfunction • Start stop unit malfunction





Diagnostic Procedure

Step	Inspection		Action
1	**INSPECT LF CONTROL 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 LF control 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 4.

Step	Inspection		Action
2	**INSPECT LF CONTROL UNIT POWER SUPPLY CIRCUIT** • Verify that the LF control unit connector is disconnected. • Connect 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].) • Measure the voltage at LF control unit terminal A (vehicle wiring harness side). • Is the voltage **B+**?	Yes	Go to the next step.
		No	Inspect the ROOM 15 A fuse. • If a fuse is burnt out: — Repair or replace the wiring harness which is shorted to ground. — Replace the fuse. • If a fuse is damaged: — Replace the fuse. • If the fuse is normal: — Repair or replace the wiring harness which has an open circuit. Go to Step 4.
3	**INSPECT LF CONTROL UNIT** • Inspect the LF control unit. (See LF CONTROL UNIT INSPECTION.) • Is the LF control unit normal?	Yes	Go to the next step.
		No	Replace the LF control unit, then go to the next step. (See LF CONTROL UNIT REMOVAL/INSTALLATION.)
4	**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 DTCs for the advanced keyless entry system using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY SYSTEM].) • Switch the ignition ON (engine off) and wait for **5 s or more**. • Perform the advanced keyless entry system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY SYSTEM].) • Is DTC B13C3:16 displayed?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the start stop unit, then go to the next step. (See START STOP UNIT REMOVAL/INSTALLATION.)
		No	Go to the next step.
5	**VERIFY IF OTHER DTCs DISPLAYED** • Are any other DTCs displayed?	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [ADVANCED KEYLESS ENTRY SYSTEM].)
		No	DTC troubleshooting completed.