


DTC B10C9:1F [ADVANCED KEYLESS ENTRY SYSTEM]

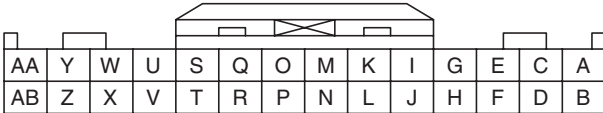
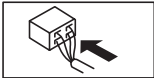
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System malfunction location	Keyless antenna (interior, front) circuit malfunction
Detection condition	<ul style="list-style-type: none"> The start stop unit detects an open circuit in the keyless antenna (interior, front) or a short to ground with the ignition switched off.
Fail-safe	<ul style="list-style-type: none"> Inhibits the door lock/unlock control using the advanced keyless entry system.
Possible cause	<ul style="list-style-type: none"> Keyless antenna (interior, front) connector or terminal malfunction LF control unit connector or terminal malfunction Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> Between LF control unit terminal O and keyless antenna (interior, front) terminal B Between LF control unit terminal Q and keyless antenna (interior, front) terminal A Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> Between LF control unit terminal O and keyless antenna (interior, front) terminal B Between LF control unit terminal Q and keyless antenna (interior, front) terminal A LF control unit malfunction Keyless antenna (interior, front) malfunction Start stop unit malfunction

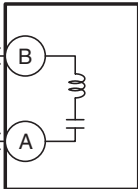
LF CONTROL UNIT



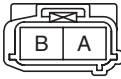
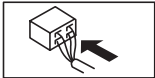
LF CONTROL UNIT
WIRING HARNESS-SIDE CONNECTOR

KEYLESS ANTENNA (INTERIOR, FRONT)



KEYLESS ANTENNA (INTERIOR, FRONT)
WIRING HARNESS-SIDE CONNECTOR

Diagnostic Procedure

Diagnostic Procedure			
Step	Inspection		Action
1	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CONNECTOR CONDITION <ul style="list-style-type: none">• 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 keyless antenna (interior, front) 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.

Step	Inspection	Action
2	INSPECT LF CONTROL UNIT CONNECTOR CONDITION <ul style="list-style-type: none"> • 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 7.
3	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Verify that the LF control unit and keyless antenna (interior, front) connectors are disconnected. • Inspect for continuity between the following terminals (vehicle wiring harness side) and body ground. <ul style="list-style-type: none"> — Keyless antenna (interior, front) terminal B — Keyless antenna (interior, front) terminal A • 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.
4	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Verify that the LF control unit and keyless antenna (interior, front) connectors are disconnected. • Inspect the wiring harness between the following terminals (vehicle wiring harness side) for continuity. <ul style="list-style-type: none"> — Between LF control unit terminal O and keyless antenna (interior, front) terminal B — Between LF control unit terminal Q and keyless antenna (interior, front) terminal A • 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.
5	INSPECT LF CONTROL UNIT <ul style="list-style-type: none"> • 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 Step 7. (See LF CONTROL UNIT REMOVAL/INSTALLATION.)
6	PERFORM DTC INSPECTION AND VERIFY IF MALFUNCTIONING PART IS KEYLESS ANTENNA (INTERIOR, FRONT) <ul style="list-style-type: none"> • 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].) • Perform the advanced keyless entry system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY SYSTEM].) • Is DTC B10C9:1F displayed? 	Yes Replace the keyless antenna (interior, front), then go to the next step. (See KEYLESS ANTENNA REMOVAL/INSTALLATION.)
		No Go to Step 8.

Step	Inspection	Action
7	VERIFY THAT REPAIRS HAVE BEEN COMPLETED <ul style="list-style-type: none"> • 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].) • Perform the advanced keyless entry system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY SYSTEM].) • Is DTC B10C9:1F 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.
8	VERIFY IF OTHER DTCs DISPLAYED <ul style="list-style-type: none"> • 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.