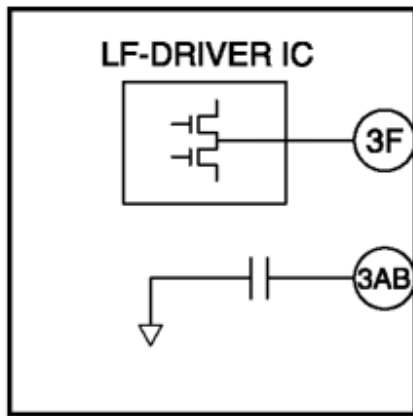


2012 - Mazda6 - Body and Accessories

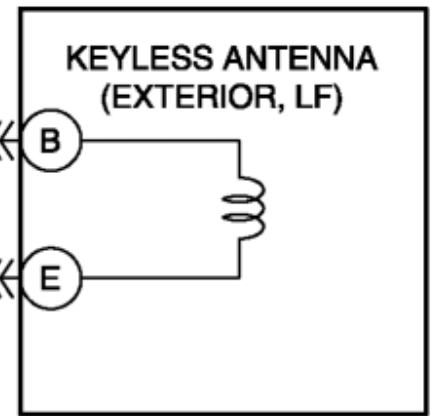
DTC B11FD:1F [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTI ON CONDI TI ON	Cannot receive signal correctly from keyless antenna (exterior, LF)
POSSI BLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Short to ground in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Short to power supply in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Short to power supply in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Open circuit in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Open circuit in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Keyless antenna (exterior, LF) malfunction • Keyless control module malfunction

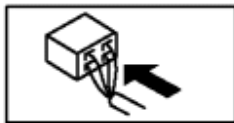
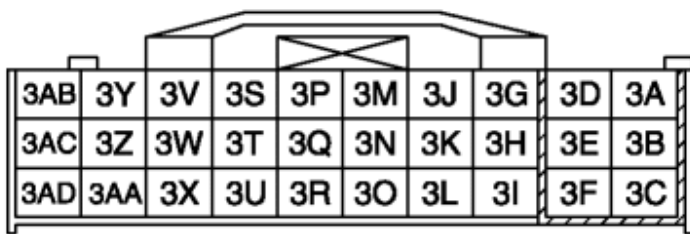
KEYLESS CONTROL MODULE



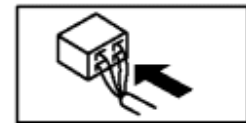
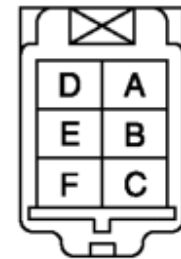
FRONT OUTER HANDLE (LH)



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR



FRONT OUTER HANDLE (LH) WIRING HARNESS-SIDE CONNECTOR



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT FRONT OUTER HANDLE (LH) CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the front outer handle (LH) connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module connector. - Inspect the connector and terminals	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.

	(corrosion, damage, pin disconnection). • Is there any malfunction?		
3	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR SHORT TO GROUND • Inspect for continuity between the following terminals and body ground: ▪ Front outer handle (LH) terminal B (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 6.
		No	Go to the next step.
4	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR SHORT TO POWER SUPPLY • Reconnect the negative battery cable. • Switch the ignition to ON. • Measure the voltage between the following terminals and body ground: ▪ Front outer handle (LH) terminal B (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) • Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 6.
		No	Go to the next step.
5	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR OPEN CIRCUIT • Inspect for continuity between the following terminals: ▪ Front outer handle (LH) terminal B (wiring harness-side) and keyless control module terminal 3F (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) and keyless control module	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

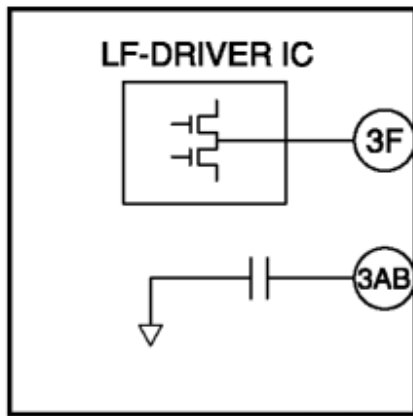
	terminal 3AB (wiring harness-side) Is there continuity?		
6	PERFORM DTC INSPECTION - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is the same DTC present?	Yes	Replace the keyless antenna (exterior, LF), then go to the next step. (See KEYLESS ANTENNA REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	Go to Step 8.
7	VERIFY TROUBLESHOOTING COMPLETED - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the keyless control module, then go to the next step. (See KEYLESS CONTROL MODULE REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	Go to the next step.
8	VERIFY THAT NO OTHER DTCs ARE PRESENT Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	DTC troubleshooting completed.

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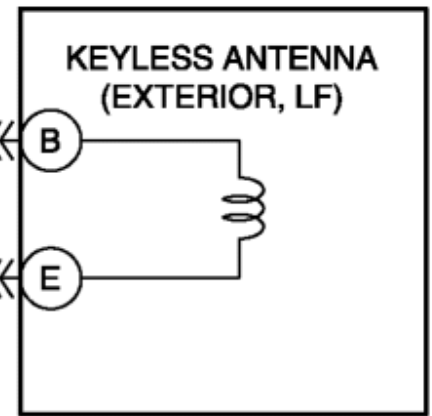
DTC B11FD:1F [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTI ON CONDI TI ON	Cannot receive signal correctly from keyless antenna (exterior, LF)
POSSI BLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Short to ground in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Short to power supply in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Short to power supply in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Open circuit in wiring harness between front outer handle (LH) terminal B and keyless control module terminal 3F • Open circuit in wiring harness between front outer handle (LH) terminal E and keyless control module terminal 3AB • Keyless antenna (exterior, LF) malfunction • Keyless control module malfunction

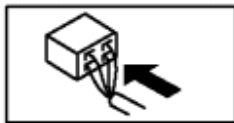
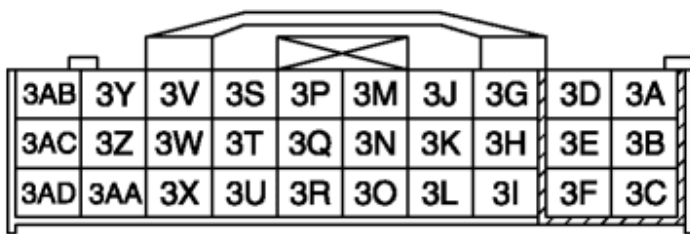
KEYLESS CONTROL MODULE



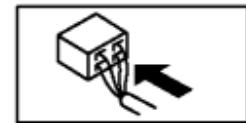
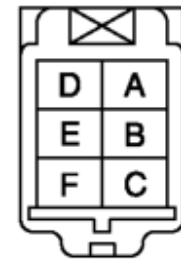
FRONT OUTER HANDLE (LH)



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR



FRONT OUTER HANDLE (LH) WIRING HARNESS-SIDE CONNECTOR



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT FRONT OUTER HANDLE (LH) CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the front outer handle (LH) connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module connector. - Inspect the connector and terminals	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.

	(corrosion, damage, pin disconnection). • Is there any malfunction?		
3	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR SHORT TO GROUND • Inspect for continuity between the following terminals and body ground: ▪ Front outer handle (LH) terminal B (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 6.
		No	Go to the next step.
4	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR SHORT TO POWER SUPPLY • Reconnect the negative battery cable. • Switch the ignition to ON. • Measure the voltage between the following terminals and body ground: ▪ Front outer handle (LH) terminal B (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) • Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 6.
		No	Go to the next step.
5	INSPECT KEYLESS ANTENNA (EXTERIOR, LF) CIRCUIT FOR OPEN CIRCUIT • Inspect for continuity between the following terminals: ▪ Front outer handle (LH) terminal B (wiring harness-side) and keyless control module terminal 3F (wiring harness-side) ▪ Front outer handle (LH) terminal E (wiring harness-side) and keyless control module	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

	terminal 3AB (wiring harness-side) Is there continuity?		
6	PERFORM DTC INSPECTION - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is the same DTC present?	Yes	Replace the keyless antenna (exterior, LF), then go to the next step. (See KEYLESS ANTENNA REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	Go to Step 8.
7	VERIFY TROUBLESHOOTING COMPLETED - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the keyless control module, then go to the next step. (See KEYLESS CONTROL MODULE REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	Go to the next step.
8	VERIFY THAT NO OTHER DTCs ARE PRESENT Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .)
		No	DTC troubleshooting completed.

