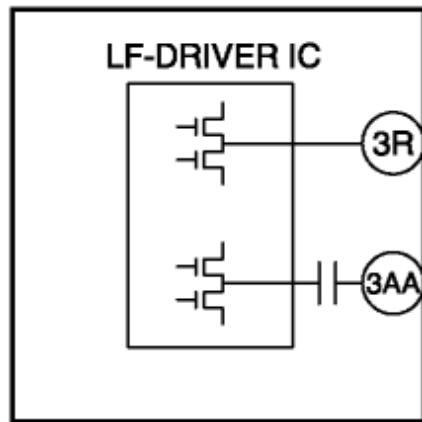


2012 - Mazda6 - Body and Accessories

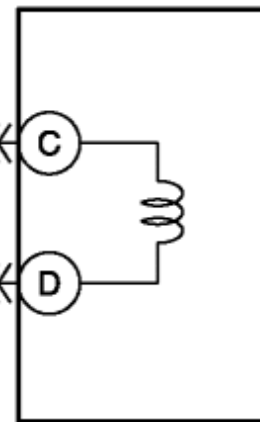
DTC B10C9:1F [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	Cannot receive signal correctly from keyless antenna (interior, front)
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Short to ground in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Short to power supply in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Short to power supply in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Open circuit in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Open circuit in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Keyless antenna (interior, front) malfunction • Keyless control module malfunction

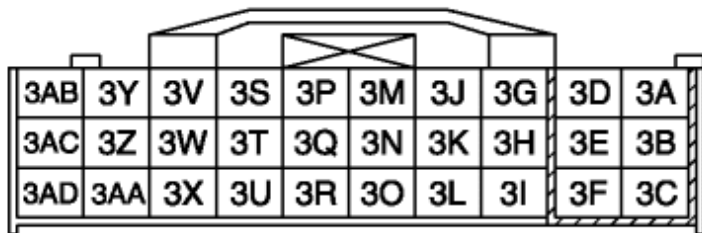
KEYLESS CONTROL MODULE



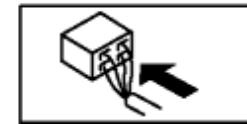
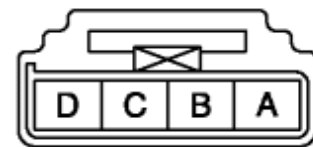
KEYLESS ANTENNA (INTERIOR, FRONT)



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR



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



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the keyless antenna (interior, front) 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.	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.

	- Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?		
3	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between the following terminals and body ground: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) ▪ Keyless antenna (interior, front) terminal D (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 (INTERIOR, FRONT) 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: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) ▪ Keyless antenna (interior, front) terminal D (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 (INTERIOR, FRONT) CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between the following terminals: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) and keyless control module terminal 3R (wiring harness-side) ▪ Keyless antenna (interior, front) terminal	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

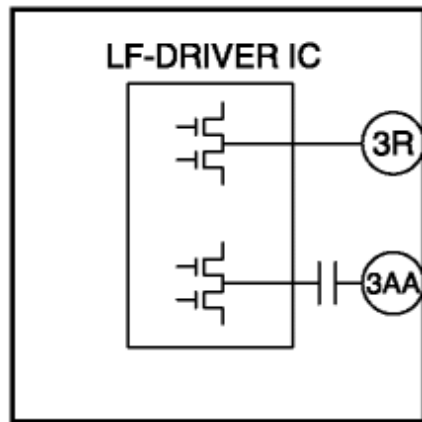
	D (wiring harness-side) and keyless control module terminal 3AA (wiring harness-side) Is there continuity?		
6	PERFORM DTC INSPECTION - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Clear the DTC from keyless control module memory using the M-MDS. (See 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 (interior, front), 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.

2012 - Mazda6 - Body and Accessories

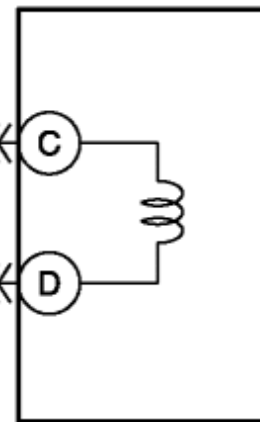
DTC B10C9:1F [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	Cannot receive signal correctly from keyless antenna (interior, front)
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Short to ground in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Short to power supply in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Short to power supply in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Open circuit in the wiring harness between keyless antenna (interior, front) terminal C and keyless control module terminal 3R • Open circuit in the wiring harness between keyless antenna (interior, front) terminal D and keyless control module terminal 3AA • Keyless antenna (interior, front) malfunction • Keyless control module malfunction

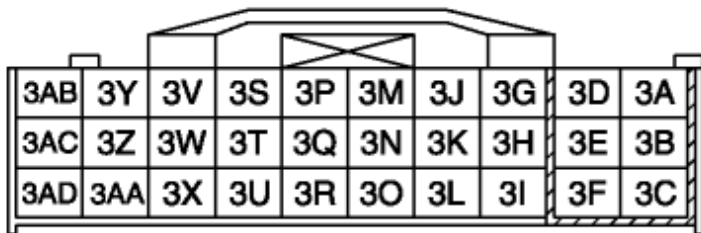
KEYLESS CONTROL MODULE



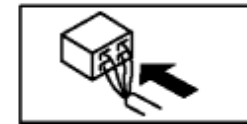
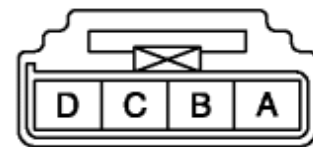
KEYLESS ANTENNA (INTERIOR, FRONT)



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR



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



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the keyless antenna (interior, front) 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.	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.

	- Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?		
3	INSPECT KEYLESS ANTENNA (INTERIOR, FRONT) CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between the following terminals and body ground: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) ▪ Keyless antenna (interior, front) terminal D (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 (INTERIOR, FRONT) 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: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) ▪ Keyless antenna (interior, front) terminal D (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 (INTERIOR, FRONT) CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between the following terminals: ▪ Keyless antenna (interior, front) terminal C (wiring harness-side) and keyless control module terminal 3R (wiring harness-side) ▪ Keyless antenna (interior, front) terminal	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

	D (wiring harness-side) and keyless control module terminal 3AA (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 (interior, front), 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.

