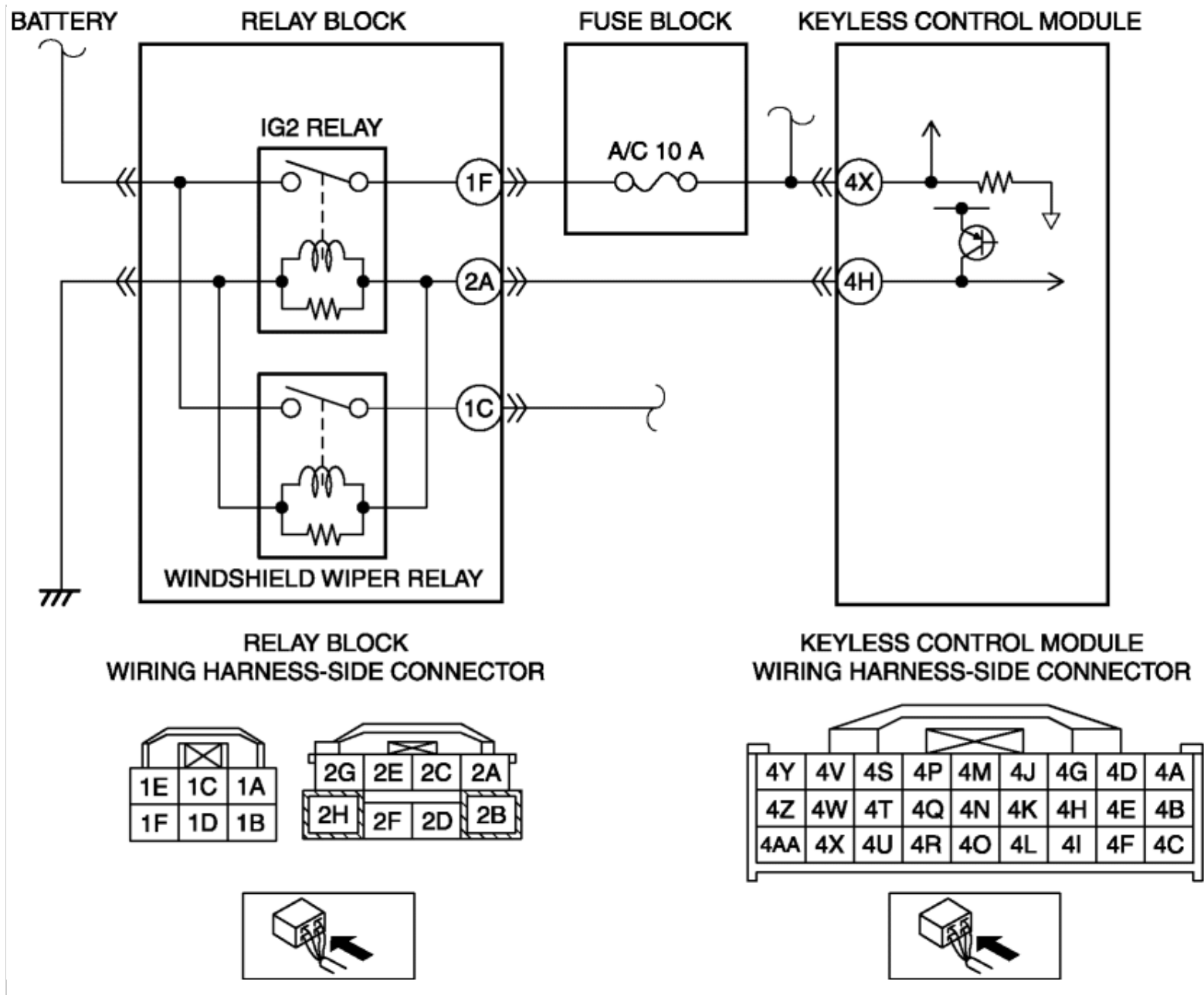


2012 - Mazda6 - Body and Accessories

DTC B112A:11 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	IG2 relay output circuit voltage less than threshold (2.2—6.5 V) is detected for 0.1 s, while the circuit is active
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between relay block terminal 2A and keyless control module terminal 4H • Relay block malfunction • Keyless control module malfunction



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT RELAY BLOCK CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the relay block connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection).	Yes Repair or replace the connector or terminals, then go to Step 5. No Go to the next step.

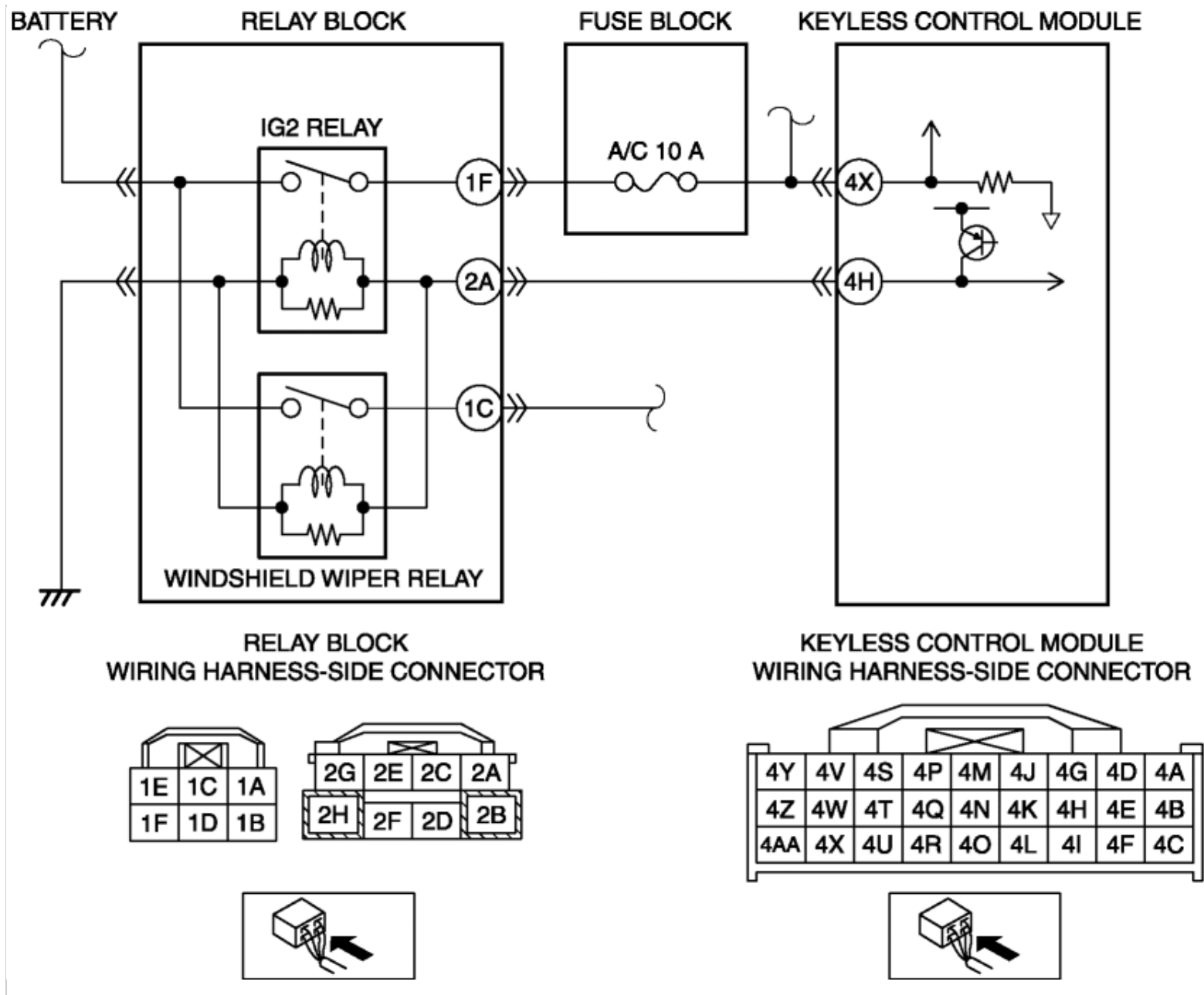
	Is there any malfunction?		
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 5.
		No	Go to the next step.
3	INSPECT IG2 RELAY OUTPUT CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between relay block terminal 2A (wiring harness-side) and body ground. - Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 5.
		No	Go to the next step.
4	INSPECT RELAY BLOCK - Inspect the relay block. (See RELAY BLOCK INSPECTION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is there any malfunction?	Yes	Replace the relay block, then go to the next step.
		No	Go to the next step.
5	VERIFY TROUBLESHOOTING COMPLETED - 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	Repeat the inspection from Step 1.
		No	Go to the next step.

6	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 B112A:11 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	IG2 relay output circuit voltage less than threshold (2.2—6.5 V) is detected for 0.1 s, while the circuit is active
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between relay block terminal 2A and keyless control module terminal 4H • Relay block malfunction • Keyless control module malfunction



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT RELAY BLOCK CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the relay block connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection).	Yes Repair or replace the connector or terminals, then go to Step 5. No Go to the next step.

	Is there any malfunction?		
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module 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 5.
		No	Go to the next step.
3	INSPECT IG2 RELAY OUTPUT CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between relay block terminal 2A (wiring harness-side) and body ground. - Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 5.
		No	Go to the next step.
4	INSPECT RELAY BLOCK - Inspect the relay block. (See RELAY BLOCK INSPECTION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM] .) - Is there any malfunction?	Yes	Replace the relay block, then go to the next step.
		No	Go to the next step.
5	VERIFY TROUBLESHOOTING COMPLETED - 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	Repeat the inspection from Step 1.
		No	Go to the next step.

6	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.