

2012 - Mazda6 - Restraints

DTC B0002:11/ B0002:12/ B0002:13/ B0002:19/ B0002:1A

System Malfunction Location

DTC	System Malfunction Location
M-MDS display	
B0002:11	Driver-side air bag module (inflator No.2) circuit short to body ground
B0002:12	Driver-side air bag module (inflator No.2) circuit short to power supply
B0002:13	Driver-side air bag module (inflator No.2) circuit resistance high
B0002:19	Short to the driver-side air bag module (inflator No.2) circuit and other air bag module circuits
B0002:1A	Driver-side air bag module (inflator No.2) circuit resistance low

Detection Condition

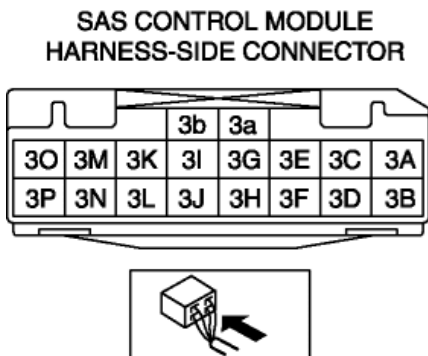
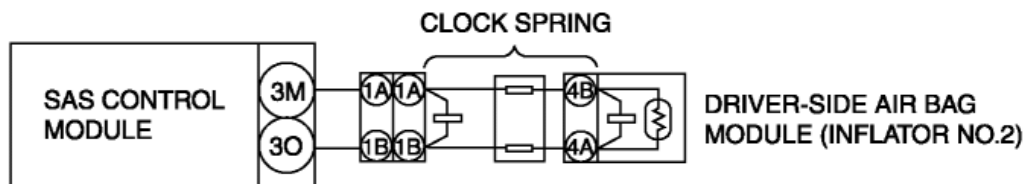
WARNING:

- Detection conditions are for understanding the DTC outline before performing an inspection. Performing an inspection according to only the detection conditions may cause injury due to an operating error, or damage the system. When performing an inspection, always follow the inspection procedure.
- Resistance other than **1.76—5.06 ohms** detected in driver-side air bag module circuit
- Wiring harness between driver-side air bag module (inflator No.2) and SAS control module has malfunction

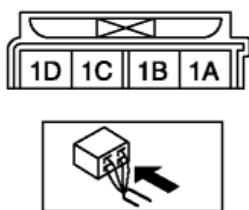
Possible Causes

- Clock spring connector malfunction
- Clock spring malfunction
- Open or short circuit the wiring harness between the clock spring and SAS control module
- Driver-side air bag module (inflator No.2) malfunction
- SAS control module malfunction

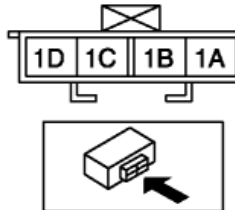
System Wiring Diagram



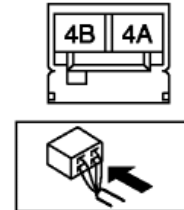
CLOCK SPRING
HARNESS-SIDE CONNECTOR



CLOCK SPRING



DRIVER-SIDE AIR BAG MODULE
HARNESS-SIDE CONNECTOR
(INFLATOR NO.2)



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT DRIVER-SIDE AIR BAG MODULE CONNECTOR (CLOCK SPRING) WARNING: - Handling the component parts improperly can accidentally operate (deploy) the air bag module, which may seriously injure you. Read the service warnings/cautions and the workshop manual before handling the air bag system components. (See AIR BAG SYSTEM SERVICE WARNINGS.) (See AIR BAG SYSTEM SERVICE CAUTIONS.) - Switch the ignition to off. - Disconnect the negative battery cable and wait for 1 min or more. - Disconnect the driver-side air bag module connector. (See DRIVER-SIDE AIR BAG MODULE REMOVAL/ INSTALLATION.) - Inspect the clock spring connector. (Corrosion, damage, and disconnected pins) - Is there any malfunction of the clock spring connector?	Yes Replace the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.) No Go to the next step.
2	INSPECT CLOCK SPRING - Remove the steering wheel. (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Remove the column cover. (See COLUMN COVER REMOVAL/ INSTALLATION.) - Remove the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.) - Inspect for continuity between clock spring connector terminals 1A—4B and 1B—4A. NOTE: - Inspect the clock spring wiring harness for continuity while shaking it. - Is there continuity?	Yes Go to the next step. No Replace the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.)
3	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND CLOCK SPRING - Remove the glove compartment. (See GLOVE COMPARTMENT REMOVAL/ INSTALLATION.) - Disconnect the passenger-side air bag module connector.	Yes Go to the next step. No Replace the wiring harness between the SAS control module and clock

	• Disconnect the driver and passenger-side side air bag module connectors. • Remove the C-pillar trim. (See C-PILLAR TRIM REMOVAL/ INSTALLATION.) • Disconnect the driver and passenger-side curtain air bag module connectors. • Remove the B-pillar lower trim. (See B-PILLAR LOWER TRIM REMOVAL/ INSTALLATION.) • Disconnect the driver and passenger-side pre-tensioner seat belt connectors. • Remove the rear console. (See REAR CONSOLE REMOVAL/ INSTALLATION.) • Disconnect the SAS control module connectors. • Inspect the wiring harness between SAS control module connector terminal 3M and clock spring connector terminal 1A, and SAS control module connector terminal 3O and clock spring connector terminal 1B for the following: ▪ Short circuit between terminals ▪ Short to body ground ▪ Open circuit NOTE: • Inspect for continuity while shaking the wiring harness between the SAS control module and clock spring. • Is the wiring harness normal?	spring.
4	INSPECT THE WIRING HARNESS BETWEEN THE SAS CONTROL MODULE AND CLOCK SPRING FOR A SHORT CIRCUIT TO THE POWER SUPPLY • Connect the negative battery cable. • Switch the ignition to ON with SAS control module connector and clock spring connector disconnected. • Measure the voltage of SAS control module connector terminals 3M and 3O. NOTE: • Measure the voltage while shaking the wiring harness between the SAS control module and clock spring. • Is the voltage measured?	Yes Replace the wiring harness between the SAS control module and clock spring.
		No Go to the next step.
5	INSPECT DRIVER-SIDE AIR BAG MODULE • Switch the ignition to off. • Disconnect the negative battery cable and wait for 1 min or more. • Connect the leads of the SST (Fuel and thermometer checker) or apply 2 ohms resistance to clock spring connector terminals 4A and 4B. • Set the resistance of the SST (Fuel and thermometer checker) to the 2 ohms position. • Except for the driver-side air bag module connector, reconnect all disconnected connectors. • Connect the negative battery cable. • Switch the ignition to ON. • Clear the DTC for the SAS control module using the M-MDS. (See CLEARING DTC.) • Perform the DTC inspection for the SAS control module using the M-MDS. (See DTC INSPECTION.) • Are the same DTCs present?	Yes Go to the next step.
		No Replace the driver-side air bag module. (See DRIVER-SIDE AIR BAG MODULE REMOVAL/ INSTALLATION .)
6	PERFORM SAS CONTROL MODULE DTC INSPECTION • Switch the ignition to off. • Disconnect the negative battery cable and wait for 1 min or more.	Yes Replace the SAS control module. (See SAS CONTROL MODULE)

• Disconnect the SST (Fuel and thermometer checker) or the 2 ohms resistance. • Connect the driver-side air bag module connector. • Connect the negative battery cable. • Switch the ignition to ON. • Clear the DTC for the SAS control module using the M-MDS. (See CLEARING DTC.) • Perform the DTC inspection for the SAS control module using the M-MDS. (See DTC INSPECTION.) • Are the same DTCs present?	REMOVAL/ INSTALLATION.)
	No DTC troubleshooting completed.

2012 - Mazda6 - Restraints

DTC B0002:11/ B0002:12/ B0002:13/ B0002:19/ B0002:1A

System Malfunction Location

DTC	System Malfunction Location
M-MDS display	
B0002:11	Driver-side air bag module (inflator No.2) circuit short to body ground
B0002:12	Driver-side air bag module (inflator No.2) circuit short to power supply
B0002:13	Driver-side air bag module (inflator No.2) circuit resistance high
B0002:19	Short to the driver-side air bag module (inflator No.2) circuit and other air bag module circuits
B0002:1A	Driver-side air bag module (inflator No.2) circuit resistance low

Detection Condition

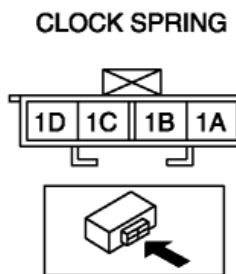
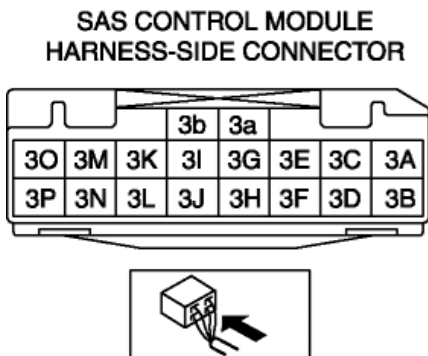
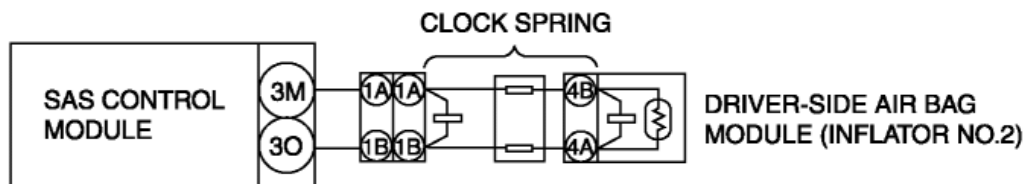
WARNING:

- Detection conditions are for understanding the DTC outline before performing an inspection. Performing an inspection according to only the detection conditions may cause injury due to an operating error, or damage the system. When performing an inspection, always follow the inspection procedure.
- Resistance other than **1.76—5.06 ohms** detected in driver-side air bag module circuit
- Wiring harness between driver-side air bag module (inflator No.2) and SAS control module has malfunction

Possible Causes

- Clock spring connector malfunction
- Clock spring malfunction
- Open or short circuit the wiring harness between the clock spring and SAS control module
- Driver-side air bag module (inflator No.2) malfunction
- SAS control module malfunction

System Wiring Diagram



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT DRIVER-SIDE AIR BAG MODULE CONNECTOR (CLOCK SPRING) WARNING: - Handling the component parts improperly can accidentally operate (deploy) the air bag module, which may seriously injure you. Read the service warnings/cautions and the workshop manual before handling the air bag system components. (See AIR BAG SYSTEM SERVICE WARNINGS.)(See AIR BAG SYSTEM SERVICE CAUTIONS.) - Switch the ignition to off. - Disconnect the negative battery cable and wait for 1 min or more. - Disconnect the driver-side air bag module connector. (See DRIVER-SIDE AIR BAG MODULE REMOVAL/ INSTALLATION.) - Inspect the clock spring connector. (Corrosion, damage, and disconnected pins) - Is there any malfunction of the clock spring connector?	Yes Replace the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.) No Go to the next step.
2	INSPECT CLOCK SPRING - Remove the steering wheel. (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Remove the column cover. (See COLUMN COVER REMOVAL/ INSTALLATION.) - Remove the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.) - Inspect for continuity between clock spring connector terminals 1A—4B and 1B—4A. NOTE: - Inspect the clock spring wiring harness for continuity while shaking it. - Is there continuity?	Yes Go to the next step. No Replace the clock spring. (See CLOCK SPRING REMOVAL/ INSTALLATION.)
3	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND CLOCK SPRING - Remove the glove compartment. (See GLOVE COMPARTMENT REMOVAL/ INSTALLATION.) - Disconnect the passenger-side air bag module connector.	Yes Go to the next step. No Replace the wiring harness between the SAS control module and clock

	• Disconnect the driver and passenger-side side air bag module connectors. • Remove the C-pillar trim. (See C-PILLAR TRIM REMOVAL/ INSTALLATION.) • Disconnect the driver and passenger-side curtain air bag module connectors. • Remove the B-pillar lower trim. (See B-PILLAR LOWER TRIM REMOVAL/ INSTALLATION.) • Disconnect the driver and passenger-side pre-tensioner seat belt connectors. • Remove the rear console. (See REAR CONSOLE REMOVAL/ INSTALLATION.) • Disconnect the SAS control module connectors. • Inspect the wiring harness between SAS control module connector terminal 3M and clock spring connector terminal 1A, and SAS control module connector terminal 3O and clock spring connector terminal 1B for the following: ▪ Short circuit between terminals ▪ Short to body ground ▪ Open circuit NOTE: • Inspect for continuity while shaking the wiring harness between the SAS control module and clock spring. • Is the wiring harness normal?	spring.
4	INSPECT THE WIRING HARNESS BETWEEN THE SAS CONTROL MODULE AND CLOCK SPRING FOR A SHORT CIRCUIT TO THE POWER SUPPLY • Connect the negative battery cable. • Switch the ignition to ON with SAS control module connector and clock spring connector disconnected. • Measure the voltage of SAS control module connector terminals 3M and 3O. NOTE: • Measure the voltage while shaking the wiring harness between the SAS control module and clock spring. • Is the voltage measured?	Yes Replace the wiring harness between the SAS control module and clock spring.
		No Go to the next step.
5	INSPECT DRIVER-SIDE AIR BAG MODULE • Switch the ignition to off. • Disconnect the negative battery cable and wait for 1 min or more. • Connect the leads of the SST (Fuel and thermometer checker) or apply 2 ohms resistance to clock spring connector terminals 4A and 4B. • Set the resistance of the SST (Fuel and thermometer checker) to the 2 ohms position. • Except for the driver-side air bag module connector, reconnect all disconnected connectors. • Connect the negative battery cable. • Switch the ignition to ON. • Clear the DTC for the SAS control module using the M-MDS. (See CLEARING DTC.) • Perform the DTC inspection for the SAS control module using the M-MDS. (See DTC INSPECTION.) • Are the same DTCs present?	Yes Go to the next step.
		No Replace the driver-side air bag module. (See DRIVER-SIDE AIR BAG MODULE REMOVAL/ INSTALLATION.)
6	PERFORM SAS CONTROL MODULE DTC INSPECTION • Switch the ignition to off. • Disconnect the negative battery cable and wait for 1 min or more.	Yes Replace the SAS control module. (See SAS CONTROL MODULE)

• Disconnect the SST (Fuel and thermometer checker) or the 2 ohms resistance. • Connect the driver-side air bag module connector. • Connect the negative battery cable. • Switch the ignition to ON. • Clear the DTC for the SAS control module using the M-MDS. (See CLEARING DTC.) • Perform the DTC inspection for the SAS control module using the M-MDS. (See DTC INSPECTION.) • Are the same DTCs present?	REMOVAL/ INSTALLATION.)
	No DTC troubleshooting completed.