

2012 - Mazda6 - Restraints

DTC B1227:11/ B1227:13/ B1227:87/ B1227:96

System Malfunction Location

DTC	System Malfunction Location
M-MDS display	
B1227:11	Passenger-side pressure sensor circuit short to body ground
B1227:13	Passenger-side pressure sensor circuit short to power supply or open line
B1227:87	Invalid signal from passenger-side pressure sensor
B1227:96	Passenger-side pressure sensor internal malfunction

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.
- Wiring harness between passenger-side pressure sensor and SAS control module has a malfunction
- Passenger-side pressure sensor has a malfunction

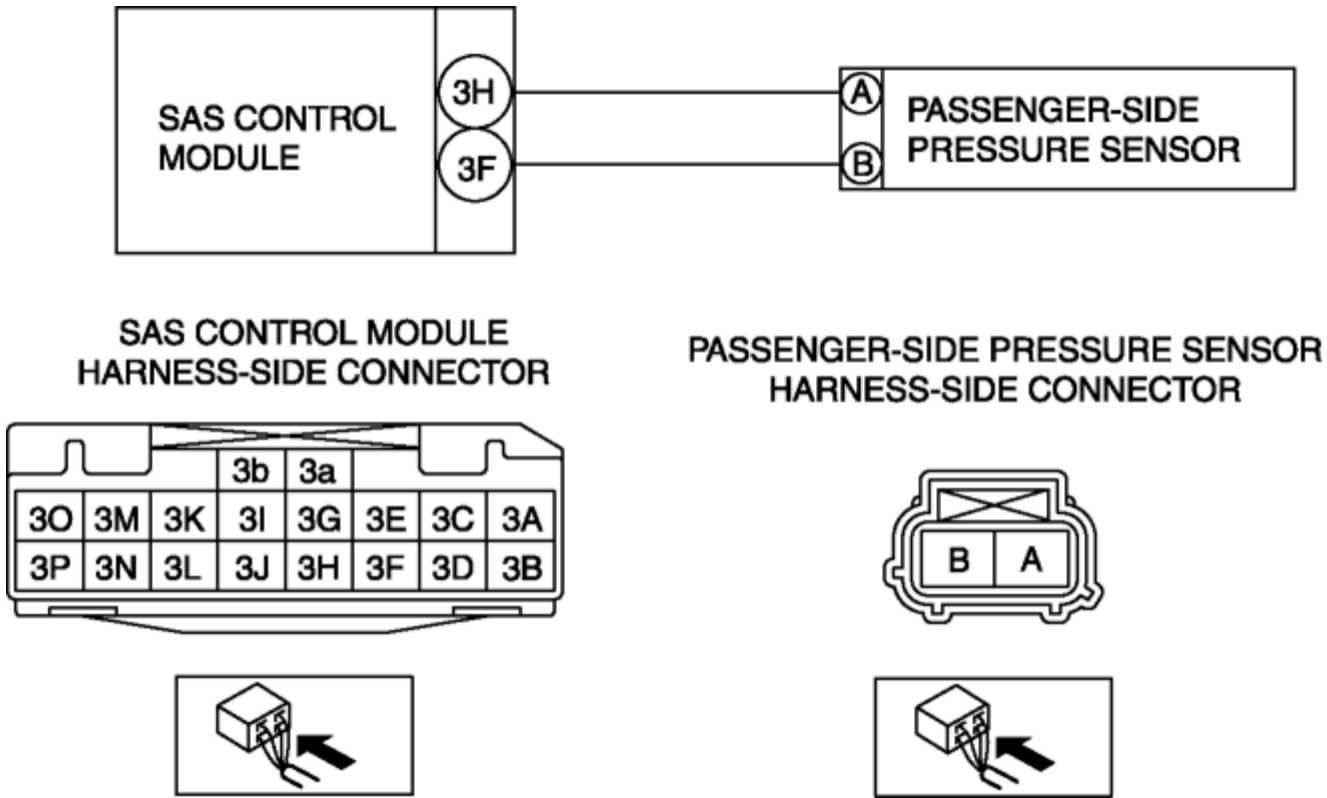
Possible Causes

- Passenger-side pressure sensor connector malfunction
- Open or short circuit in the wiring harness between the passenger-side pressure sensor and SAS control module

Passenger-side pressure sensor malfunction

- SAS control module malfunction

System Wiring Diagram



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT PASSENGER-SIDE PRESSURE SENSOR CONNECTOR 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.	Yes Replace the passenger-side pressure sensor wiring harness.
		No Go to the next step.

	Remove the passenger-side front door trim. • Disconnect the passenger-side pressure sensor connector. (See PRESSURE SENSOR REMOVAL/ INSTALLATION.) • Inspect the passenger-side pressure sensor connector. (Corrosion, damage, and disconnected pins) • Is there any malfunction of the passenger-side pressure sensor connector?		
2	INSPECT WIRING HARNESS BETWEEN SAS CONTROL MODULE AND PASSENGER-SIDE PRESSURE SENSOR • Remove the column cover. (See COLUMN COVER REMOVAL/ INSTALLATION.) • Disconnect the clock spring connector. • Remove the glove compartment. (See GLOVE COMPARTMENT REMOVAL/ INSTALLATION.) • Disconnect the passenger-side air bag module connector. • 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 harnesses between SAS control module connector terminal 3H and passenger-side pressure sensor connector terminal A, and SAS control module connector terminal 3F and passenger-side pressure sensor connector terminal B for the following: ▪ Short circuit between terminals ▪ Short to body ground ▪ Open circuit	Yes	Go to the next step.
		No	Replace the wiring harness between the SAS control module and the passenger-side pressure sensor.
NOTE:			

	- Inspect for continuity while shaking the wiring harness between the SAS control module and the passenger-side pressure sensor. - Is the wiring harness normal?		
3	INSPECT THE WIRING HARNESS BETWEEN THE SAS CONTROL MODULE AND PASSENGER-SIDE PRESSURE SENSOR FOR A SHORT CIRCUIT TO THE POWER SUPPLY - Connect the negative battery cable. - Switch the ignition to ON with SAS control module connector and passenger-side pressure sensor disconnected. - Measure the voltage of SAS control module connector terminals 3H and 3F. NOTE: - Measure the voltage while shaking the wiring harness between the SAS control module and the passenger-side pressure sensor. - Is the voltage measured?	Yes	Replace the wiring harness between the SAS control module and the passenger-side pressure sensor.
		No	Go to the next step.
4	PERFORM SAS CONTROL MODULE DTC INSPECTION - Switch the ignition to off. - Disconnect the negative battery cable and wait for 1 min or more. - 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	Replace the passenger-side pressure sensor, then go to the next step. (See PRESSURE SENSOR REMOVAL/ INSTALLATION .)
		No	DTC troubleshooting completed.
5	RE-PERFORM SAS CONTROL MODULE DTC INSPECTION - 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	Yes	Replace the SAS control module. (See SAS CONTROL MODULE REMOVAL/ INSTALLATION .)
		No	DTC troubleshooting

	using the M-MDS. (See DTC INSPECTION .)		completed.
	• Are the same DTCs present?		

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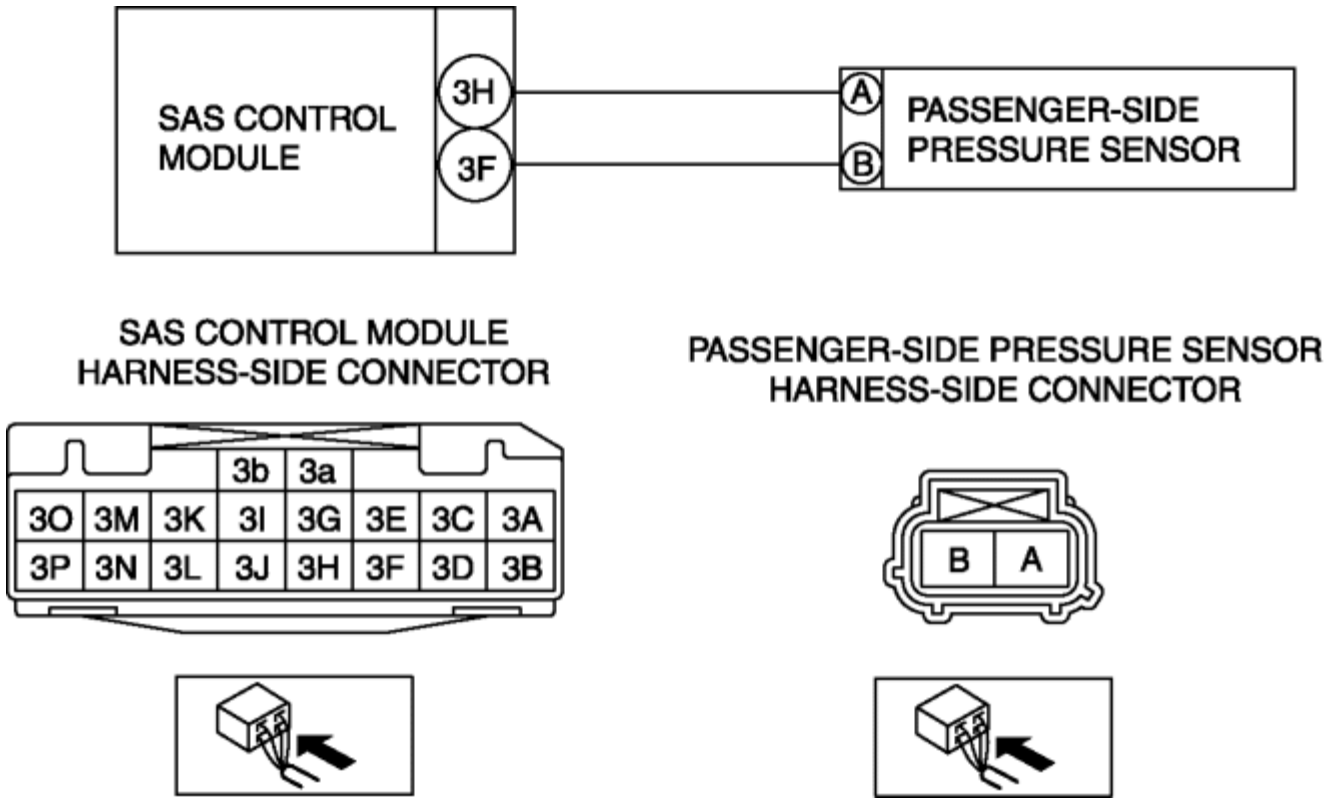
Possible Causes

- Passenger-side pressure sensor connector malfunction
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Passenger-side pressure sensor malfunction

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	Remove the passenger-side front door trim. • Disconnect the passenger-side pressure sensor connector. (See PRESSURE SENSOR REMOVAL/ INSTALLATION.) • Inspect the passenger-side pressure sensor connector. (Corrosion, damage, and disconnected pins) • Is there any malfunction of the passenger-side pressure sensor connector?		
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		No	DTC troubleshooting completed.
5	RE-PERFORM SAS CONTROL MODULE DTC INSPECTION - 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	Yes	Replace the SAS control module. (See SAS CONTROL MODULE REMOVAL/ INSTALLATION .)
		No	DTC troubleshooting

	using the M-MDS. (See DTC INSPECTION .)	
	• Are the same DTCs present?	completed.