

2012 - Mazda6 - Brakes

DTC
C0061:28/ C0061:62/ C0062:27/ C0062:28/ C0062:29/ C0062:62/ C0062:65/ C0063:27/ C0063:28/ C0063:61/ C0063:62/ C006A:61/ C1A97:27/ C1A97:28/ C1A97:29/ C1A98:27/ C1A98:28/ C1A98:29
[DYNAMIC STABILITY CONTROL (DSC)]

C0061:28	SAS control module system
C0061:62	
C0062:27	
C0062:28	
C0062:29	
C0062:62	
C0062:65	
C0063:27	
C0063:28	
C0063:61	
C0063:62	
C006A:61	
C1A97:27	
C1A97:28	
C1A97:29	
C1A98:27	
C1A98:28	
C1A98:29	
	NOTE: - The low-G (XY) sensor and the yaw rate sensor are built into the SAS control module. C0061:28 - While driving in a straight line at a vehicle speed of 10 km/ h { 6.2 mph} or more, the lateral-G value exceeds 0.4 G for a continuous 2.5 s. - While driving at a vehicle speed of 10 km/ h { 6.2 mph} or more, the lateral-G value fluctuates within 0.0147 G for a continuous 30 s or more, and all the following values are the same after the vehicle has finished turning. - Yaw rate sensor value

**DETECTION
CONDI TION**

- Yaw rate value calculated from steering angle sensor
- Yaw rate value calculated from wheel speed

C0061:62

- While driving at a vehicle speed of **10 km/ h { 6.2 mph} or more**, the difference between the lateral-G value calculated from the yaw rate sensor value and the lateral-G value calculated from the low-G (XY) sensor exceeds **0.5 G** for a continuous **60 s**.

C0062:27

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal or longitudinal-G value (out of range) from the low-G (XY) sensor is received for a continuous **0.5 s**.

C0062:28

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the low-G (XY) sensor is received for a continuous **0.5 s**.

C0062:29

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the low-G (XY) sensor (longitudinal-G) is received for a continuous **0.5 s**.

C0062:62

- While driving at a vehicle speed of **30 km/ h { 19 mph} or more**, the difference between the longitudinal-G value calculated from the low-G (XY) sensor value and the longitudinal-G value calculated from the wheel speed exceeds **0.35 G** for a continuous **60 s**.

C0062:65

- When the vehicle is stopped from a vehicle speed of **30 km/ h { 19 mph} or more**, the longitudinal-G value of the low-G (XY) sensor remains unchanged for 16 times.

C0063:27

- While driving at a vehicle speed of **10 km/ h { 6.2 mph} or more**, a signal change that is not within the specification is detected by the yaw rate sensor.

C0063:28

- The yaw rate value from the yaw rate sensor exceeds the specification while the vehicle is stopped.

C0063:61

- The difference between the estimated yaw rate values determined by the ABS wheel speed sensor and the low-G (XY) sensor, and the steering angle sensor and the output value from the yaw rate sensor exceeds the specification.

C0063:62

- While driving at a vehicle speed of **15 km/ h { 9.3 mph} or more**, the difference between the yaw rate value calculated from the ABS wheel speed sensor and the low-G (XY) sensor and the yaw rate value from the yaw rate sensor exceeds the specification for a continuous **10 s**.

C006A:61

- The signals from the yaw rate sensor and the low-G sensor (lateral-G) sensor do not change for **0.5 s or more**.
- The signal from the low-G (XY) sensor (longitudinal-G) does not change for **0.5 s or more**.

C1A97:27

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal and the lateral-G value (out of range) from the low-G (XY) sensor are received for a continuous **0.5 s**.

C1A97:28

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the low-G (XY) sensor is received for a continuous **0.5 s**.

C1A97:29

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the low-G (XY) sensor (lateral-G) is received for a continuous **0.5 s**.

C1A98:27

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal or the yaw rate value (out of range) from the yaw rate sensor is received for a continuous **0.5 s**.

C1A98:28

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the yaw rate sensor is received for a continuous **0.5 s**.

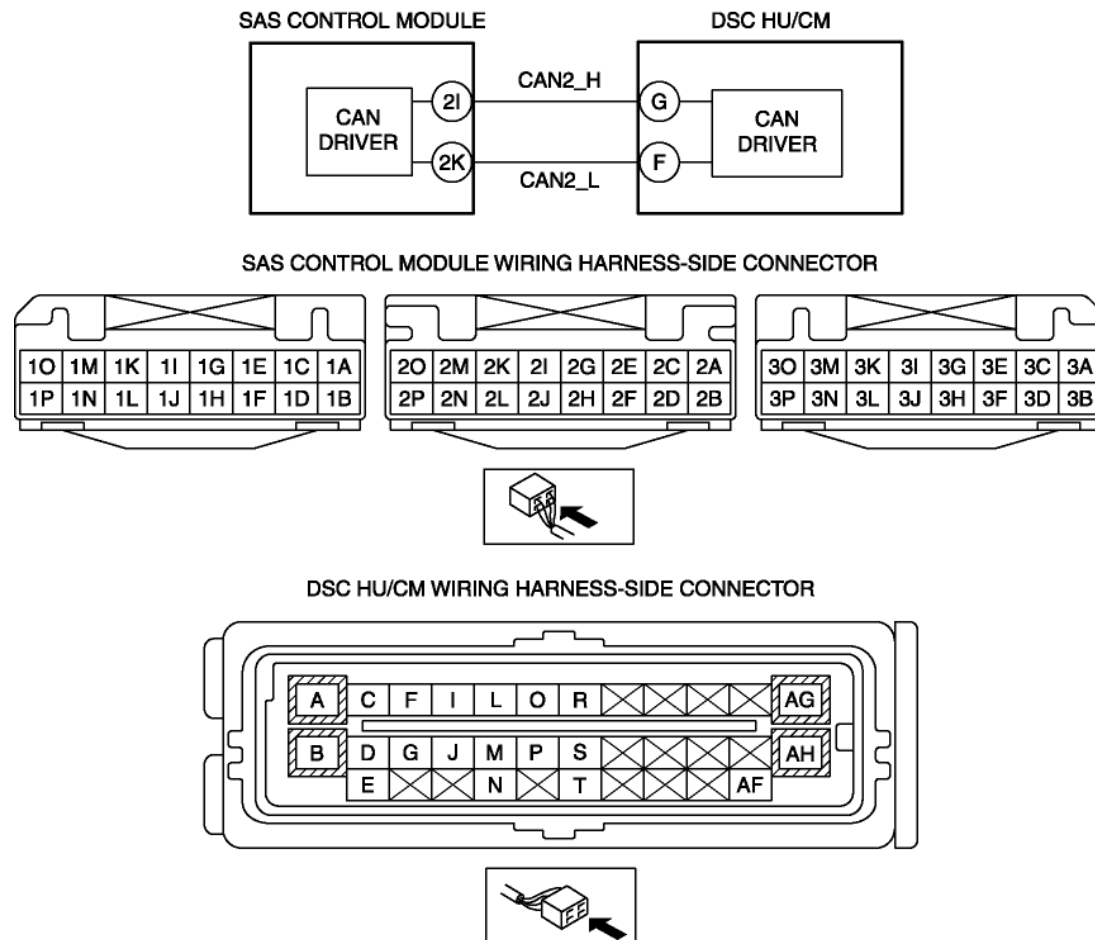
C1A98:29

- While driving at a vehicle speed of **3 km/ h { 2 mph} or more**, an error signal from the yaw rate sensor is received for a continuous **0.5 s**.

- SAS control module malfunction

**POSSIBLE
CAUSE**

- Connector or terminal malfunction
- Short to ground in wiring harness between SAS control module terminal 2I and DSC HU/CM terminal G
- Short to ground in wiring harness between SAS control module terminal 2K and DSC HU/CM terminal F
- Open circuit in wiring harness between SAS control module terminal 2I and DSC HU/CM terminal G
- Open circuit in wiring harness between SAS control module terminal 2K and DSC HU/CM terminal F
- DSC HU/CM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT SAS CONTROL MODULE MALFUNCTION • Switch the ignition to off. • Using the M-MDS, perform the DTC inspection for the SAS control module. (See DTC INSPECTION.) • Are any DTCs detected?	Yes Go to applicable DTC inspection. (See DTC TABLE.) No Go to the next step.
2	INSPECT SAS CONTROL MODULE CONNECTOR CONDITION	Yes Repair or replace the connector or terminals, then go to Step 6.

	Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the SAS control module connector. • Inspect the connector and terminals (corrosion, damage, pin disconnection). • Is there any malfunction?		No	Go to the next step.
3	INSPECT DSC HU/ CM CONNECTOR CONDITION • Disconnect the DSC HU/CM 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.
4	INSPECT SAS CONTROL MODULE COMMUNICATION CIRCUIT FOR SHORT TO GROUND • Inspect for continuity between the following terminals and body ground: ▪ SAS control module terminal 2I (wiring harness-side) ▪ SAS control module terminal 2K (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.
5	INSPECT SAS CONTROL MODULE POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT • Inspect for continuity between the following terminals: ▪ SAS control module terminal 2I (wiring harness-side) and DSC HU/CM terminal G (wiring harness-side) ▪ SAS control module terminal 2K (wiring harness-side) and DSC HU/CM terminal F (wiring harness-side) • Is there continuity?		Yes	Go to the next step.
			No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
6	VERIFY DTC TROUBLESHOOTING COMPLETED • Make sure to reconnect the disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC from the DSC HU/CM memory using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Perform the DSC DTC inspection. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Is the same DTC present?		Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the DSC HU/CM, then go to the next step. (See DSC HU/ CM REMOVAL/ INSTALLATION .)
			No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE • Are any DTCs present?		Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)] .)
			No	DTC troubleshooting completed.

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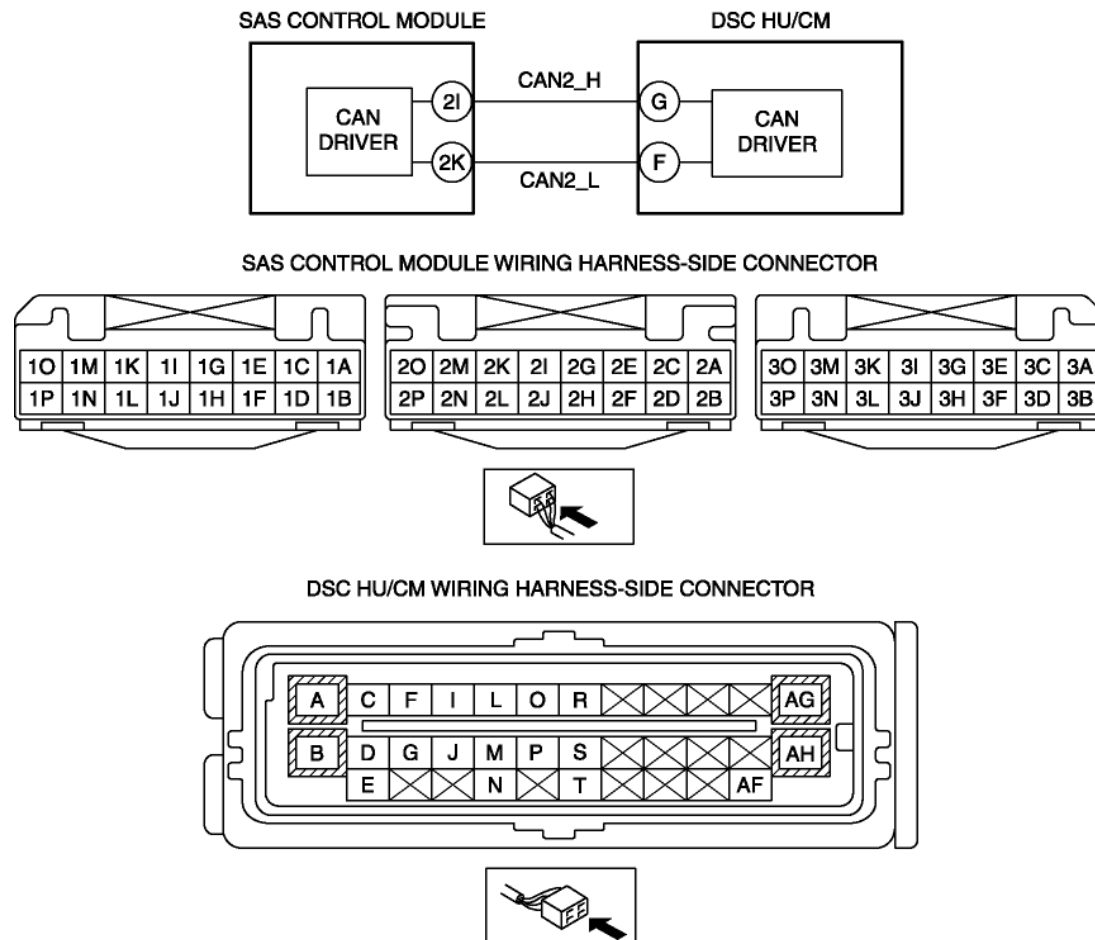
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