

2012 - Mazda6 - Brakes

DTC

C0031:23/ C0031:27/ C0031:62/ C0034:23/ C0034:27/ C0034:62/ C0037:23/ C0037:27/ C0037:62/ C003A:23/ C003A:27/ C003A:62 [DYNAMIC STABILITY CONTROL (DSC)]

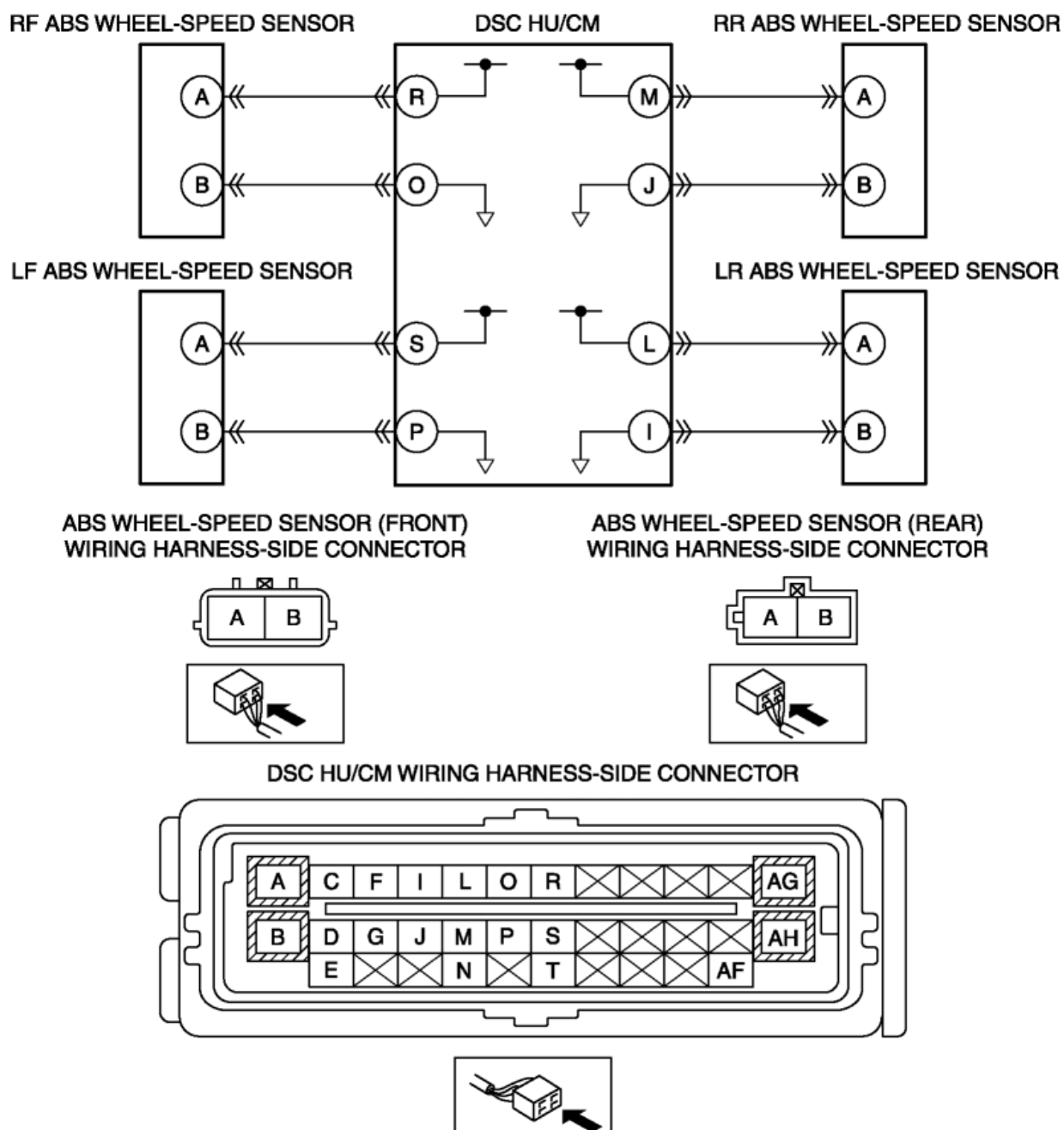
NOTE:

- When only the driving wheels are rotated while the vehicle is jacked up, DTCs C0037:23 and C003A:23 are input to the memory.

C0031:23	LF ABS wheel-speed sensor/ABS sensor rotor
C0031:27	
C0031:62	
C0034:23	RF ABS wheel-speed sensor/ABS sensor rotor
C0034:27	
C0034:62	
C0037:23	LR ABS wheel-speed sensor/ABS sensor rotor
C0037:27	
C0037:62	
C003A:23	RR ABS wheel-speed sensor/ABS sensor rotor
C003A:27	
C003A:62	
DETECTION CONDITION	C0031:23/ C0031:62/ C0034:23/ C0034:62/ C0037:23/ C0037:62/ C003A:23/ C003A:62 • Abnormal sensor output is detected on any of four vehicle ABS wheels when the vehicle goes from start to a speed of 10 km/ h { 6.2 mph } . • Greater than specified amount of ABS demand occurs from front ABS wheel sensors when vehicle is started. • The following condition is detected 8 times continuously (one detection period is when ignition is switched from ON to off): ▪ While the vehicle is traveling at a speed of 20 km/ h { 12.4 mph } or more, the wheel speed signal from the rear wheels is not input to the DSC HU/CM for a continuous 20 s. C0031:27/ C0034:27/ C0037:27/ C003A:27 • Periodic abnormality is detected in the signal wave pattern from the ABS wheel-speed sensor. • ABS control continues to operate for 45 s or more.
	• Connector or terminal malfunction • Short to ground in wiring harness between following terminals: ▪ LF ABS wheel-speed sensor terminal B and DSC HU/CM terminal P

POSSIBLE CAUSE

- RF ABS wheel-speed sensor terminal B and DSC HU/CM terminal O
- LR ABS wheel-speed sensor terminal B and DSC HU/CM terminal I
- RR ABS wheel-speed sensor terminal B and DSC HU/CM terminal J
- ABS wheel-speed sensor malfunction
 - Sensor rotor malfunction
 - Incorrect clearance between ABS wheel-speed sensor and sensor rotor
 - Poor installation of sensor rotor
- DSC HU/CM malfunction
 - Solenoid valve malfunction
 - Pump motor malfunction
 - Pipe clogging



STEP	INSPECTION	ACTION
1	VERIFY PID FOR ABS WHEEL-SPEED SENSOR OUTPUT ERROR - Switch the ignition to off. - Connect the M-MDS to the DLC-2. - Select the following PIDs using the M-MDS: - WSPD_LF - WSPD_RF - WSPD_LR - WSPD_RR - Drive the vehicle. - Verify the vehicle speed. - Are the vehicle speed detected by all ABS wheel-speed sensors approximately same?	YesGo to Step 4.
		NoGo to the next step.
2	INSPECT ABS WHEEL-SPEED SENSOR CONNECTOR CONDITION - Disconnect the negative battery cable. - Disconnect the following connector: - C0031:23/C0031:27/C0031:62 - LF ABS wheel-speed sensor - C0034:23/C0034:27/C0034:62 - RF ABS wheel-speed sensor - C0037:23/C0037:27/C0037:62 - LR ABS wheel-speed sensor - C003A:23/C003A:27/C003A:62 - RR ABS wheel-speed sensor - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	YesRepair or replace the connector or terminals, then go to Step 5.
		NoGo to the next step.
3	INSPECT ABS WHEEL-SPEED SENSOR CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between the following terminals and body ground: - C0031:23/C0031:27/C0031:62 - LF ABS wheel-speed sensor terminal B (wiring harness-side) - C0034:23/C0034:27/C0034:62 - RF ABS wheel-speed sensor terminal B (wiring harness-side) - C0037:23/C0037:27/C0037:62 - LR ABS wheel-speed sensor terminal B (wiring harness-side)	YesRepair or replace the wiring harness for a possible short to ground, then go to Step 5.
		NoGo to the next step.

	▪ C003A:23/C003A:27/C003A:62 • RR ABS wheel-speed sensor terminal B (wiring harness-side) • Is there continuity?		
4	INSPECT SENSOR ROTOR CONDITON • Visually inspect the sensor rotor for foreign material adhering or poor installation. • Is there any malfunction?	Yes Replace the wheel hub component, then go to the next step. (See WHEEL HUB, STEERING KNUCKLE REMOVAL/ INSTALLATION.) (See WHEEL HUB COMPONENT REMOVAL/ INSTALLATION.)	
		No Replace the malfunctioning ABS wheel-speed sensor, then go to the next step. (See FRONT ABS WHEEL-SPEED SENSOR REMOVAL/ INSTALLATION.) (See REAR ABS WHEEL-SPEED SENSOR REMOVAL/ INSTALLATION.)	
5	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)].) • Drive the vehicle at speed of 10km/ h { 6.2 mph } or more. • 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.	
6	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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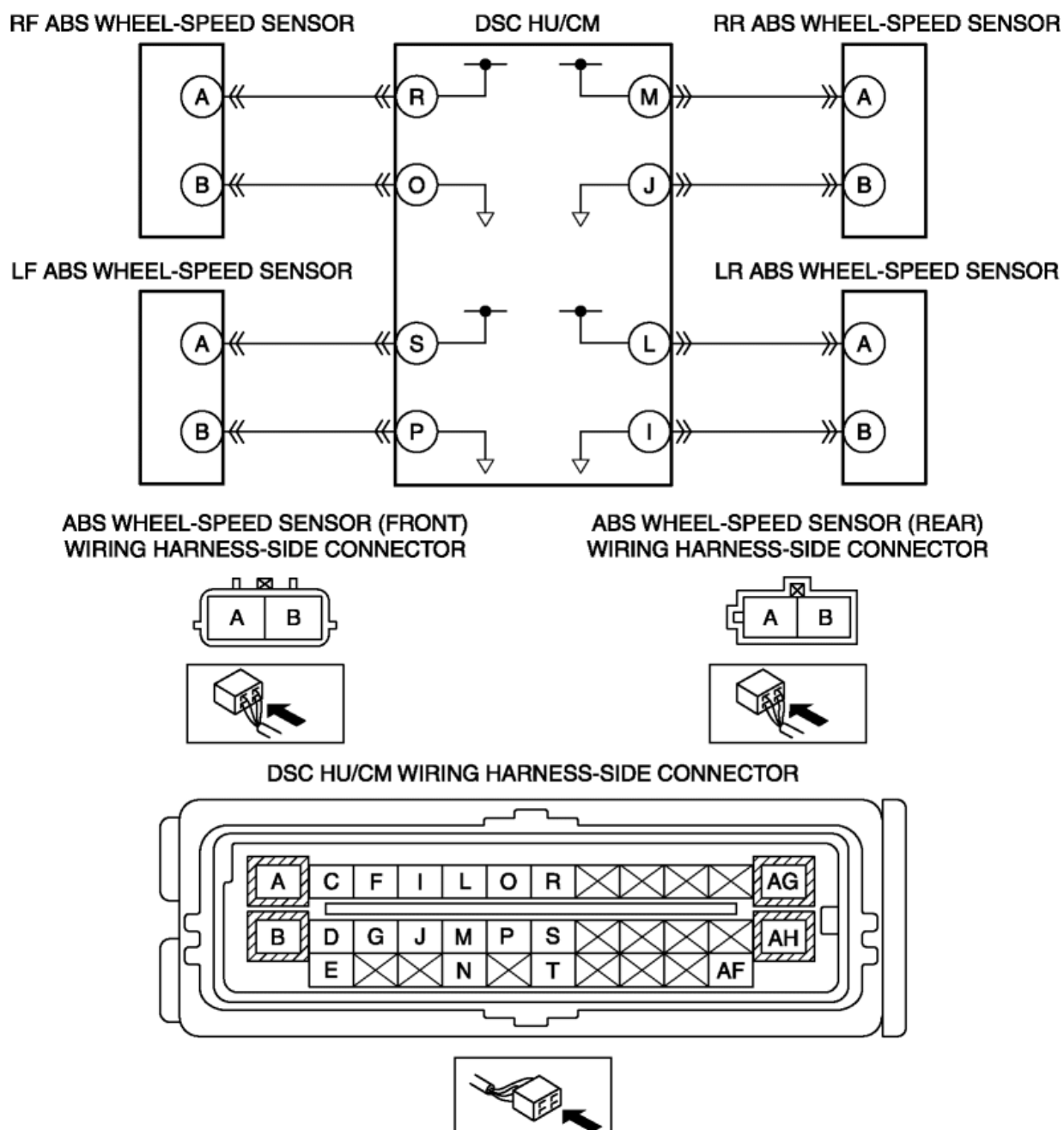
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