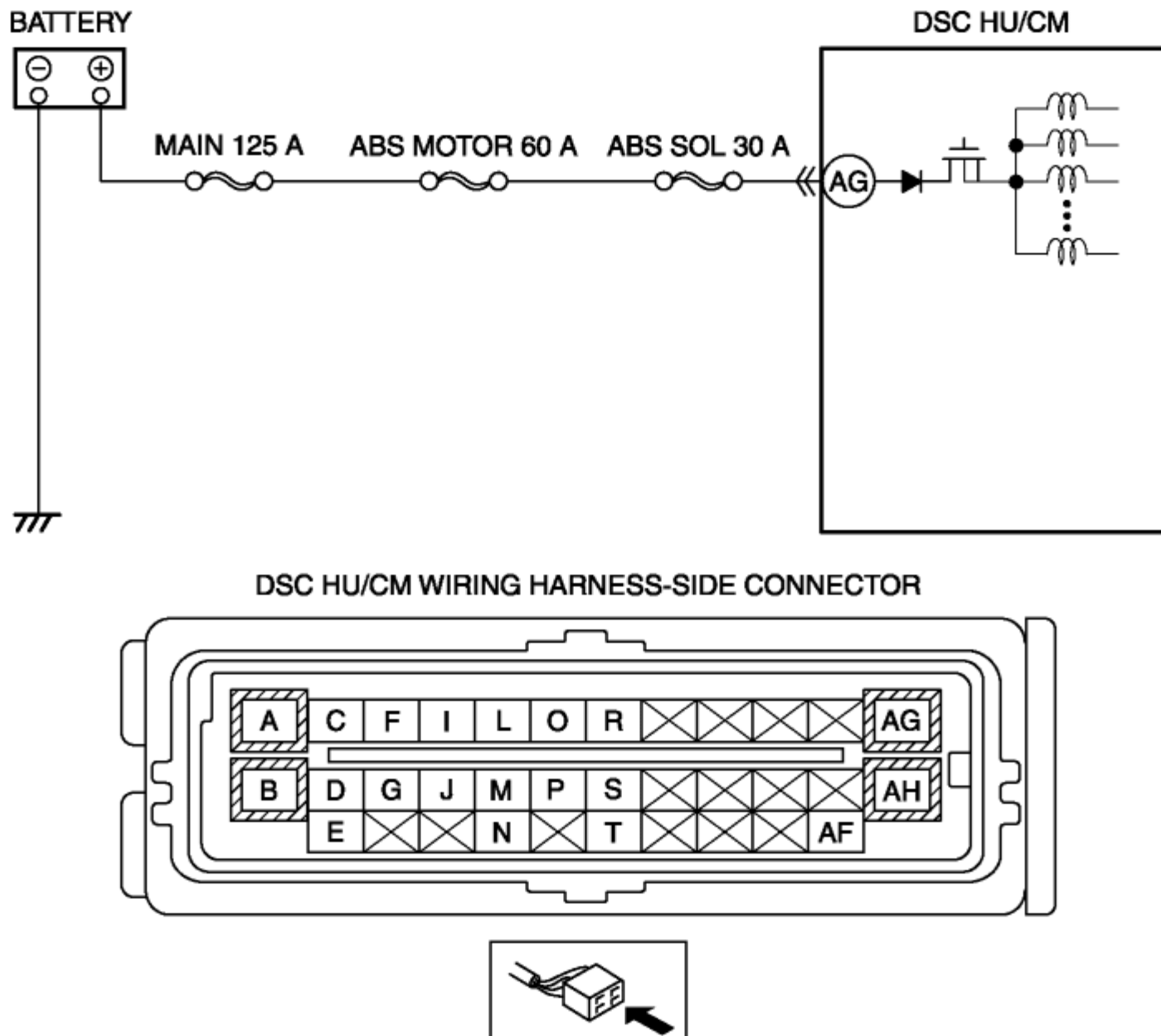


2012 - Mazda6 - Brakes

DTC C1A77:12/ C1A77:13/ C1A77:16 [DYNAMIC STABILITY CONTROL (DSC)]

C1A77:12	Valve relay
C1A77:13	
C1A77:16	
DETECTION CONDITION	C1A77:12 • Detect the valve relay monitor ON while the relay is off for 4.5 s or more. C1A77:13 • Detect the valve relay monitor off while the relay is ON for 0.22 s or more. C1A77:16 • The valve relay monitor stuck off when the relay ON is commanded.
POSSIBLE CAUSE	• Fuse malfunction ▪ MAIN 125 A fuse ▪ ABS MOTOR 60 A fuse ▪ ABS SOL 30 A fuse • Valve relay operation malfunction • Connector or terminal malfunction • Short to ground or open circuit in wiring harness between battery positive terminal and DSC HU/CM terminal AG • DSC HU/CM malfunction ▪ DSC HU/CM internal circuit malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT FUSE - Switch the ignition to off. - Disconnect the negative battery cable. - Remove the following fuses: - MAIN 125 A fuse - ABS MOTOR 60 A fuse - ABS SOL 30 A	Yes Replace the malfunctioning fuse, then go to Step 5.
		No Install the fuses, then go to the next step.

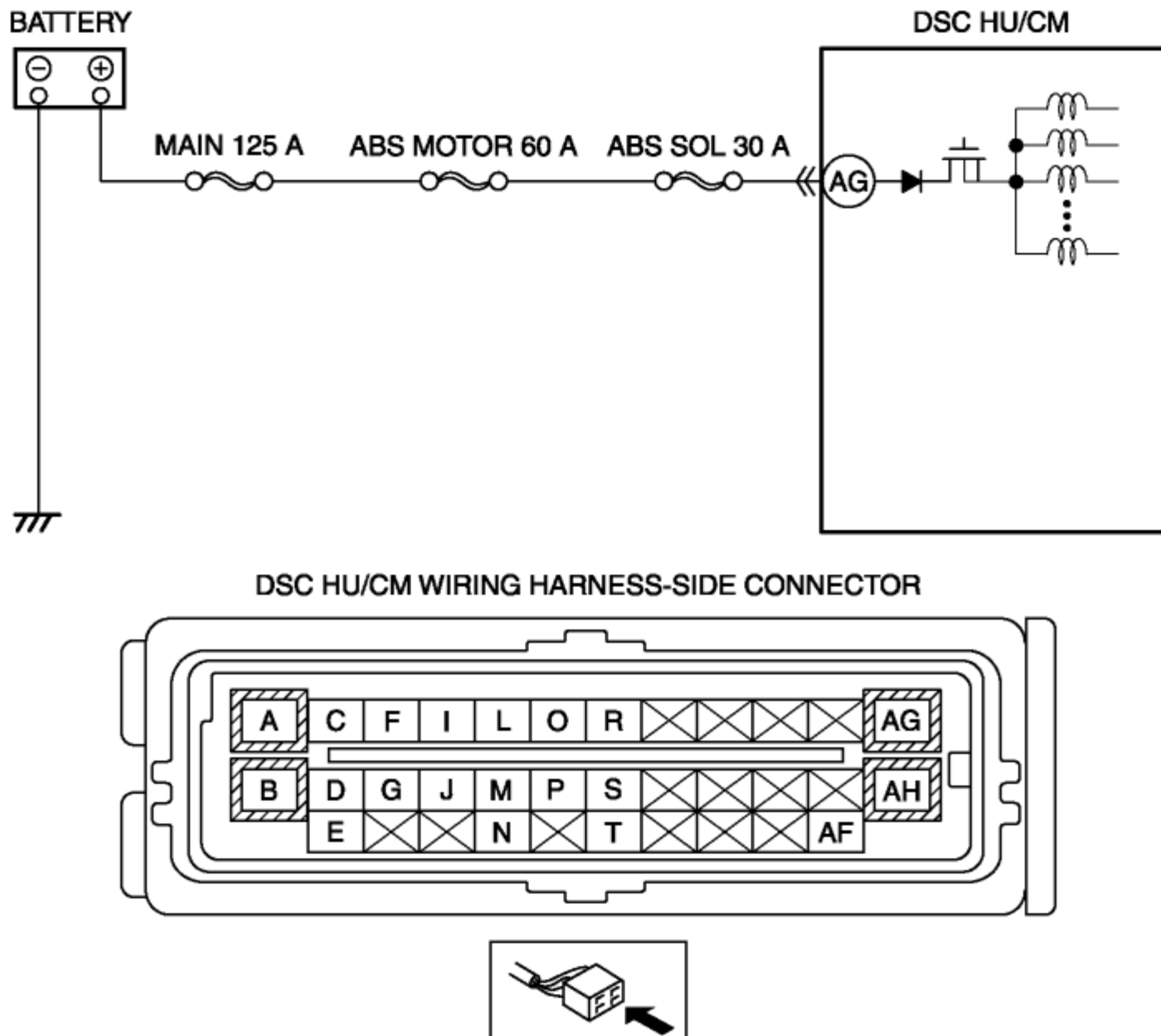
	fuse • Inspect the fuses. • Are there any malfunction?		
2	VERIFY PID FOR VALVE RELAY OPERATION • Reconnect the negative battery cable. • Switch the ignition to ON (engine off). • Access the PID VPWR using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Does the valve relay operate?	Yes	Go to the next step.
		No	Replace the DSC HU/CM, then go to Step 5. (See DSC HU/ CM REMOVAL/ INSTALLATION .)
3	INSPECT DSC HU/ CM CONNECTOR CONDITION • Switch the ignition to off. • Disconnect the negative battery cable. • 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 5.
		No	Go to the next step.
4	INSPECT VALVE RELAY POWER SUPPLY CIRCUIT FOR SHORT TO GROUND OR OPEN CIRCUIT • Reconnect the negative battery cable. • Switch the ignition to ON. • Measure the voltage between DSC HU/CM terminal AG (wiring harness-side) and body ground. • Is the voltage B+ ?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to ground or open circuit, then go to the next step.
5	VERIFY DTC TROUBLESHOOTING COMPLETED • Make sure to reconnect the disconnected connectors. • Reconnect the negative battery cable.	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.)

	• Clear the DTC from the DSC HU/CM memory using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Switch the ignition to ON. • Perform the DSC DTC inspection. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Is the same DTC present?	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.

2012 - Mazda6 - Brakes

DTC C1A77:12/ C1A77:13/ C1A77:16 [DYNAMIC STABILITY CONTROL (DSC)]

C1A77:12	Valve relay
C1A77:13	
C1A77:16	
DETECTION CONDITION	C1A77:12 • Detect the valve relay monitor ON while the relay is off for 4.5 s or more. C1A77:13 • Detect the valve relay monitor off while the relay is ON for 0.22 s or more. C1A77:16 • The valve relay monitor stuck off when the relay ON is commanded.
POSSIBLE CAUSE	• Fuse malfunction ▪ MAIN 125 A fuse ▪ ABS MOTOR 60 A fuse ▪ ABS SOL 30 A fuse • Valve relay operation malfunction • Connector or terminal malfunction • Short to ground or open circuit in wiring harness between battery positive terminal and DSC HU/CM terminal AG • DSC HU/CM malfunction ▪ DSC HU/CM internal circuit malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT FUSE - Switch the ignition to off. - Disconnect the negative battery cable. - Remove the following fuses: - MAIN 125 A fuse - ABS MOTOR 60 A fuse - ABS SOL 30 A	Yes Replace the malfunctioning fuse, then go to Step 5.
		No Install the fuses, then go to the next step.

	fuse • Inspect the fuses. • Are there any malfunction?		
2	VERIFY PID FOR VALVE RELAY OPERATION • Reconnect the negative battery cable. • Switch the ignition to ON (engine off). • Access the PID VPWR using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Does the valve relay operate?	Yes Go to the next step. No Replace the DSC HU/CM, then go to Step 5. (See DSC HU/ CM REMOVAL/ INSTALLATION.)	
3	INSPECT DSC HU/ CM CONNECTOR CONDITION • Switch the ignition to off. • Disconnect the negative battery cable. • 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 5. No Go to the next step.	
4	INSPECT VALVE RELAY POWER SUPPLY CIRCUIT FOR SHORT TO GROUND OR OPEN CIRCUIT • Reconnect the negative battery cable. • Switch the ignition to ON. • Measure the voltage between DSC HU/CM terminal AG (wiring harness-side) and body ground. • Is the voltage B+ ?	Yes Go to the next step. No Repair or replace the wiring harness for a possible short to ground or open circuit, then go to the next step.	
5	VERIFY DTC TROUBLESHOOTING COMPLETED • Make sure to reconnect the disconnected connectors. • Reconnect the negative battery cable.	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.)	

	• Clear the DTC from the DSC HU/CM memory using the M-MDS. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Switch the ignition to ON. • Perform the DSC DTC inspection. (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) • Is the same DTC present?		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.