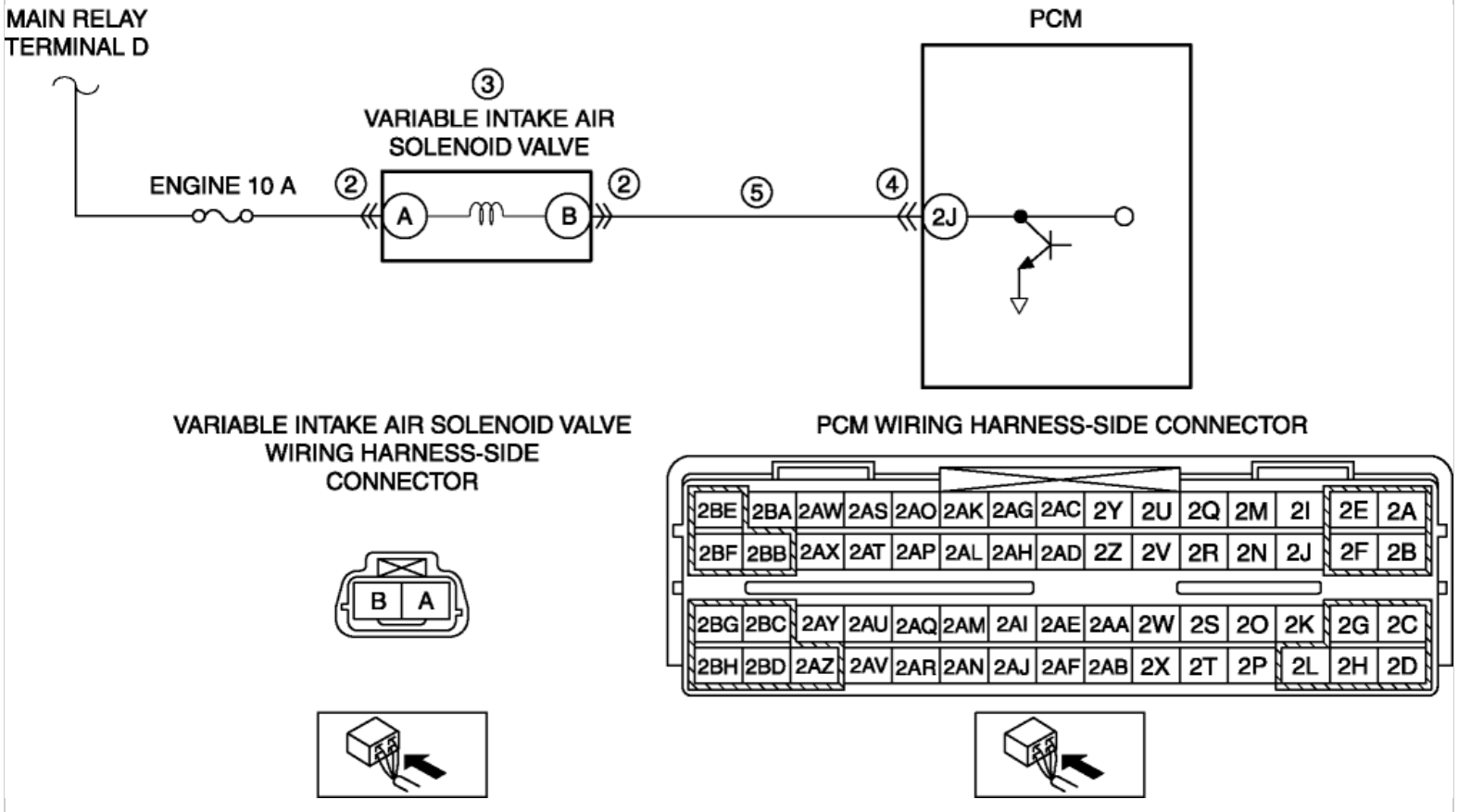
2012 - Mazda6 - Engine

DTC P0662:00 [MZR 2.5]

DTC P0662:00	Variable intake air solenoid valve circuit high input
DETECTION CONDITION	• The PCM monitors the variable intake air solenoid valve control signal. If the PCM turns the variable intake air solenoid valve on but current at the PCM terminal still remains high, the PCM determines that the variable intake air solenoid valve circuit has malfunction. **Diagnostic support note** • This is a continuous monitor (other). • The MIL does not illuminate. • FREEZE FRAME DATA (Mode2)/Snapshot data is not available. • The DTC is stored in the PCM memory.
POSSIBLE CAUSE	• Variable intake air solenoid valve connector or terminal malfunction • Variable intake air solenoid valve malfunction • PCM connector or terminal malfunction • Short to power supply in wiring harness between variable intake air solenoid valve terminal B and PCM terminal 2J • PCM malfunction



Diagnostic procedure

STEP	INSPECTION		ACTION
1	**VERIFY RELATED REPAIR INFORMATION AVAILABILITY** • Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available?	Yes	Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
2	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the variable intake air solenoid valve connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal and/or connector, then go to Step 6.
		No	Go to the next step.
3	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE** • Inspect the variable intake air solenoid valve. (See **VARIABLE INTAKE AIR SOLENOID VALVE INSPECTION [MZR 2.5]**.) • Is there any malfunction?	Yes	Replace the variable intake air solenoid valve, then go to Step 6. (See **INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZR 2.5]**.)
		No	Go to the next step.
4	**INSPECT PCM CONNECTOR CONDITION** • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal and/or connector, then go to Step 6.
		No	Go to the next step.
5	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY** • Variable intake air solenoid valve and PCM connectors are disconnected. • Switch the ignition to ON (engine off). • Measure the voltage between variable intake air solenoid valve terminal B (wiring harness-side) and body ground. • Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to the next step.
		No	Go to the next step.
6	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See **AFTER REPAIR PROCEDURE [MZR 2.5]**.) • Access the RPM PID using the M-MDS. (See **ON-BOARD DIAGNOSTIC TEST [MZR 2.5]**.) • Increase the engine speed **more than 4,750 rpm** for **10 times**. • Perform the KOEO or KOER self test. (See **KOEO/ KOER SELF TEST [MZR 2.5]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See **PCM REMOVAL/ INSTALLATION [MZR 2.5]**.) Go to the next step.
		No	Go to the next step.

7	**VERIFY AFTER REPAIR PROCEDURE** • Perform the "AFTER REPAIR PROCEDURE". (See **AFTER REPAIR PROCEDURE [MZR 2.5]**.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [MZR 2.5]**.)
		No	DTC troubleshooting completed.

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2012 - Mazda6 - Engine

DTC P0662:00 [MZR 2.5]

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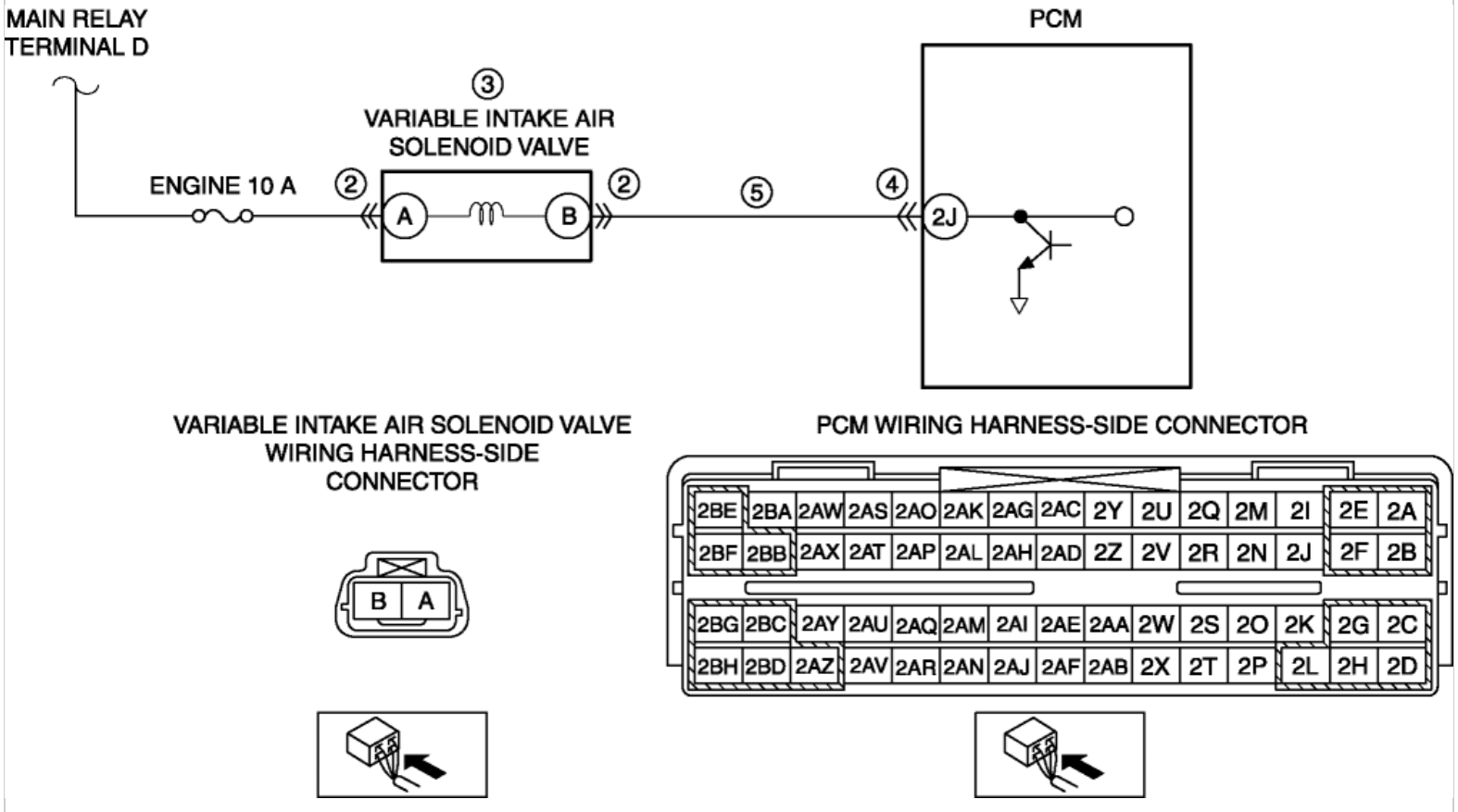
DETECTION CONDITION	• The PCM monitors the variable intake air solenoid valve control signal. If the PCM turns the variable intake air solenoid valve on but current at the PCM terminal still remains high, the PCM determines that the variable intake air solenoid valve circuit has malfunction. **Diagnostic support note** • This is a continuous monitor (other). • The MIL does not illuminate. • FREEZE FRAME DATA (Mode2)/Snapshot data is not available. • The DTC is stored in the PCM memory.
POSSIBLE CAUSE	• Variable intake air solenoid valve connector or terminal malfunction • Variable intake air solenoid valve malfunction • PCM connector or terminal malfunction • Short to power supply in wiring harness between variable intake air solenoid valve terminal B and PCM terminal 2J • PCM malfunction



Diagnostic procedure

STEP	INSPECTION		ACTION
1	**VERIFY RELATED REPAIR INFORMATION AVAILABILITY** • Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available?	Yes	Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
2	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the variable intake air solenoid valve connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal and/or connector, then go to Step 6.
		No	Go to the next step.
3	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE** • Inspect the variable intake air solenoid valve. (See **VARIABLE INTAKE AIR SOLENOID VALVE INSPECTION [MZR 2.5]**.) • Is there any malfunction?	Yes	Replace the variable intake air solenoid valve, then go to Step 6. (See **INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZR 2.5]**.)
		No	Go to the next step.
4	**INSPECT PCM CONNECTOR CONDITION** • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal and/or connector, then go to Step 6.
		No	Go to the next step.
5	**INSPECT VARIABLE INTAKE AIR SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY** • Variable intake air solenoid valve and PCM connectors are disconnected. • Switch the ignition to ON (engine off). • Measure the voltage between variable intake air solenoid valve terminal B (wiring harness-side) and body ground. • Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to the next step.
		No	Go to the next step.
6	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See **AFTER REPAIR PROCEDURE [MZR 2.5]**.) • Access the RPM PID using the M-MDS. (See **ON-BOARD DIAGNOSTIC TEST [MZR 2.5]**.) • Increase the engine speed **more than 4,750 rpm** for **10 times**. • Perform the KOEO or KOER self test. (See **KOEO/ KOER SELF TEST [MZR 2.5]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See **PCM REMOVAL/ INSTALLATION [MZR 2.5]**.) Go to the next step.
		No	Go to the next step.

7	**VERIFY AFTER REPAIR PROCEDURE** • Perform the "AFTER REPAIR PROCEDURE". (See **AFTER REPAIR PROCEDURE [MZR 2.5]**.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [MZR 2.5]**.)
		No	DTC troubleshooting completed.

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