

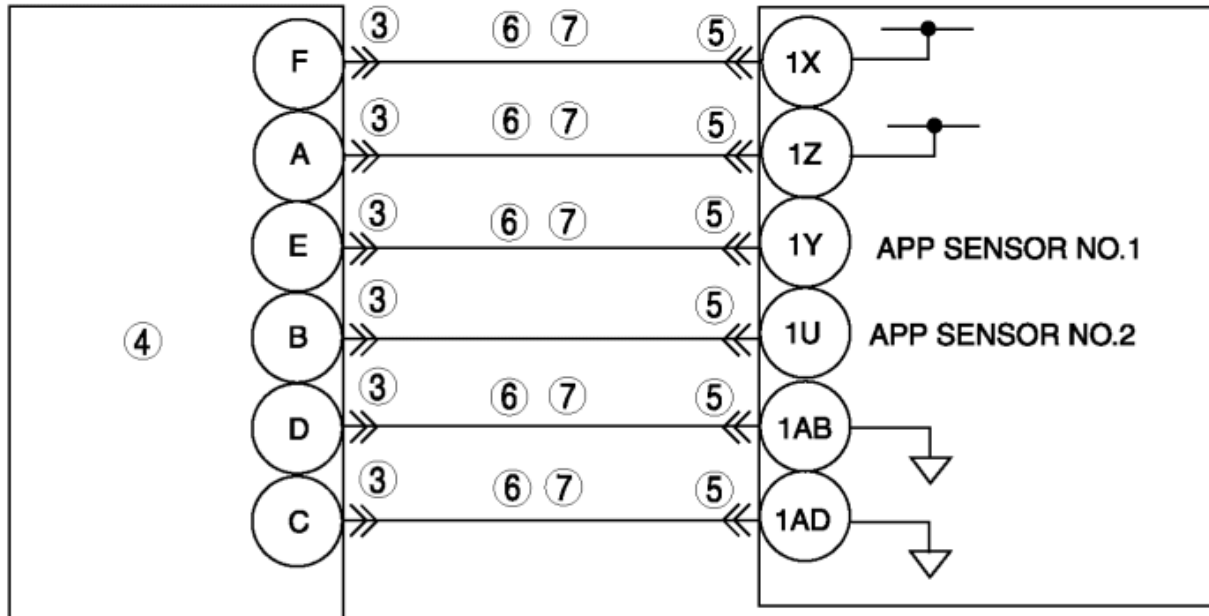
2012 - Mazda6 - Engine

DTC P2123:00 [MZI 3.7 V6]

DTC P2123:00	APP sensor No.1 circuit high input
DETECTION CONDITION	• APP sensor No.1 is out of self-test range high.
POSSIBLE CAUSE	• Connector or terminal malfunction • APP sensor malfunction • Open circuit wiring harness between APP sensor terminal D and PCM terminal 1AB • Short to power supply in wiring harness between APP sensor terminal E and PCM terminal 1Y

APP SENSOR

PCM

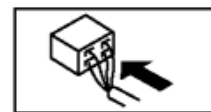
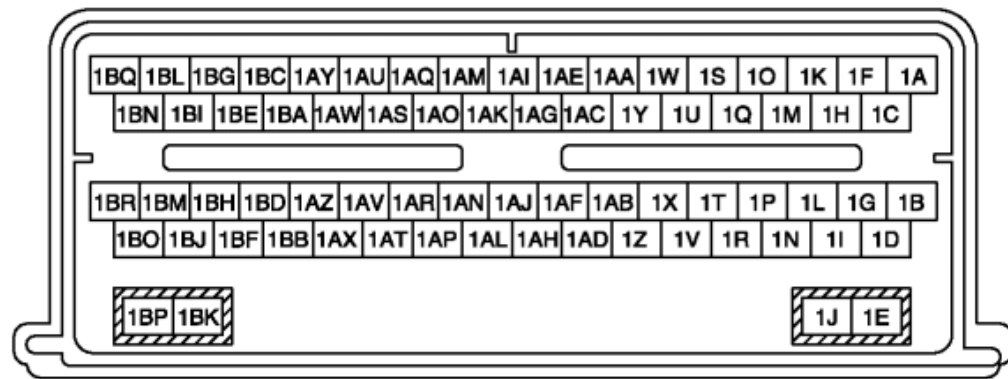
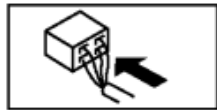
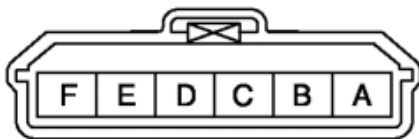


PCM

WIRING HARNESS-SIDE CONNECTOR

APP SENSOR

WIRING HARNESS-SIDE CONNECTOR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step. No Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY Verify related Service Bulletins and/or on-line repair information availability.	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.

	Is any related Service Bulletins available?	No	Go to the next step.
3	INSPECT APP SENSOR CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the APP sensor connector. - Inspect for poor connection (such as damaged/pulled-out pins, corrosion). - Are there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
4	INSPECT APP SENSOR NO.1 - Inspect APP sensor No.1. (See ACCELERATOR PEDAL POSITION (APP) SENSOR INSPECTION [MZI 3.7 V6] .) - Is there any malfunction?	Yes	Replace the accelerator pedal, then go to Step 8. (See ACCELERATOR PEDAL REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the PCM connector. - Inspect for poor connection (such as damaged/pulled-out pins, corrosion). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
6	INSPECT APP SENSOR NO.1 CIRCUIT FOR OPEN CIRCUIT - Switch the ignition off. - Inspect for continuity between the following terminals (wiring harness-side). - APP sensor terminal D and PCM terminal 1AB. - Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 8.
7	INSPECT APP SENSOR NO.1 SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY - Switch the ignition ON (Engine off). - Measure the voltage between the following terminals (wiring harness-side). - APP sensor terminal E and body ground. - Is there voltage B+ ?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
8	VERIFY TROUBLESHOOTING OF DTC P2123:00 HAS BEEN COMPLETED Verify that all disconnected connectors	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM.

	reconnected. • Clear the DTC from the PCM memory using the M-MDS. • Start the engine. • Is the same DTC present?		(See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Go to the next step.
		No	Go to the next step.
9	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No	DTC troubleshooting completed.

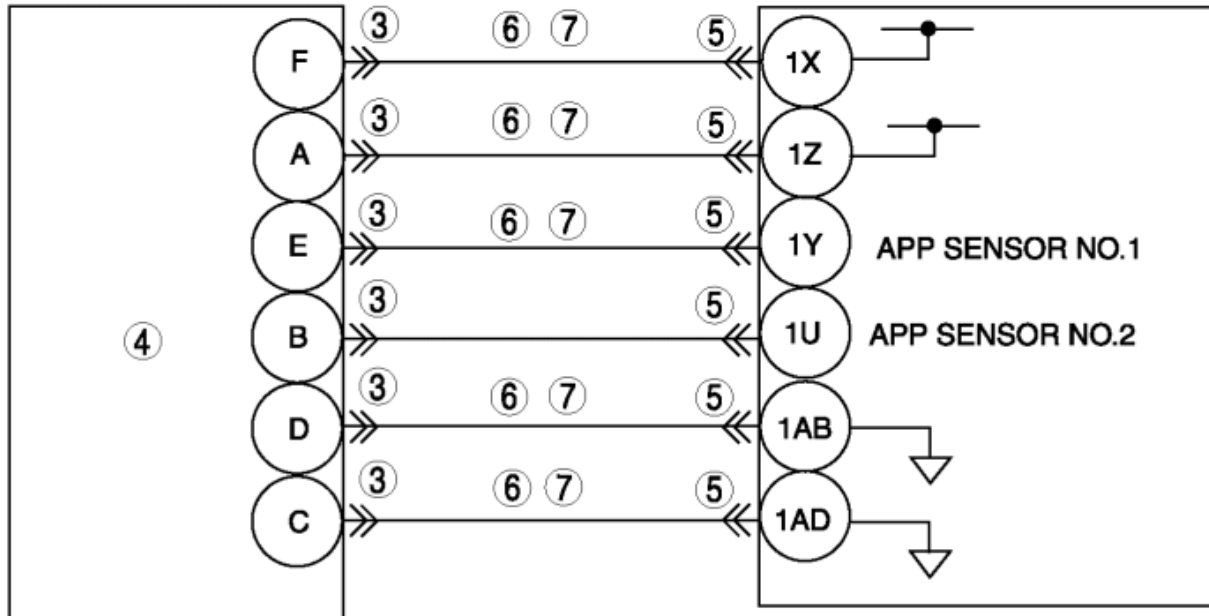
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APP SENSOR

PCM

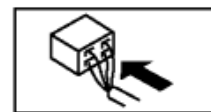
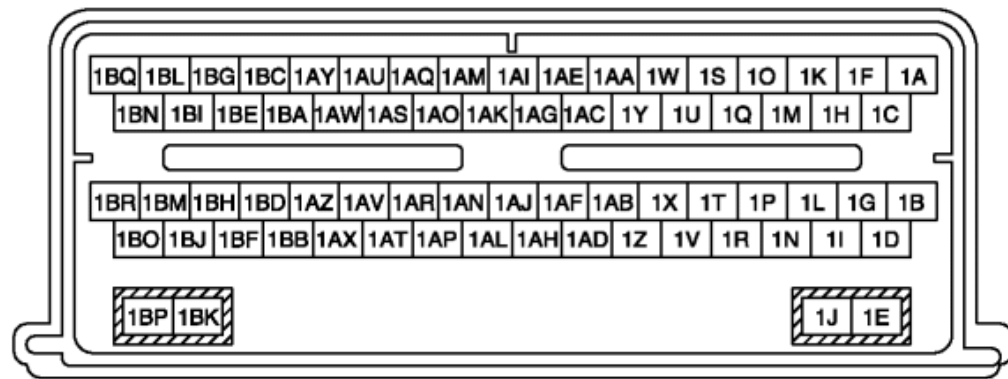
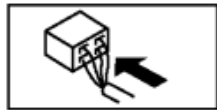
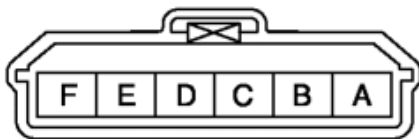


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APP SENSOR

WIRING HARNESS-SIDE CONNECTOR



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4	INSPECT APP SENSOR NO.1 - Inspect APP sensor No.1. (See ACCELERATOR PEDAL POSITION (APP) SENSOR INSPECTION [MZI 3.7 V6] .) - Is there any malfunction?	Yes	Replace the accelerator pedal, then go to Step 8. (See ACCELERATOR PEDAL REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the PCM connector. - Inspect for poor connection (such as damaged/pulled-out pins, corrosion). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
6	INSPECT APP SENSOR NO.1 CIRCUIT FOR OPEN CIRCUIT - Switch the ignition off. - Inspect for continuity between the following terminals (wiring harness-side). - APP sensor terminal D and PCM terminal 1AB. - Is there continuity?	Yes	Go to the next step.
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