

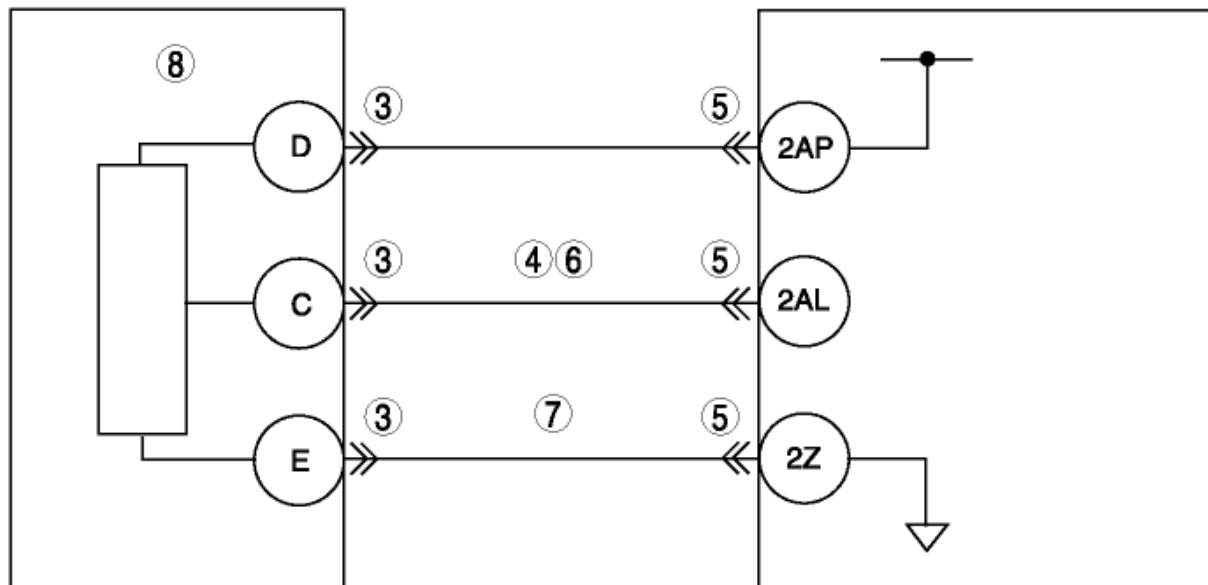
2012 - Mazda6 - Engine

DTC P0222:00 [MZI 3.7 V6]

DTC P0222:00	TP sensor No.2 circuit low input
DETECTION CONDITION	The TP sensor No.2 circuit was flagged as a concern by the PCM indicating a low voltage or open circuit.
POSSIBLE CAUSE	- Connector or terminal malfunction - Short to ground circuit between throttle body terminal C and PCM terminal 2AL - Open circuit between throttle body terminal C and PCM terminal 2AL - Open circuit between throttle body terminal E and PCM terminal 2Z - TP sensor No.2 malfunction

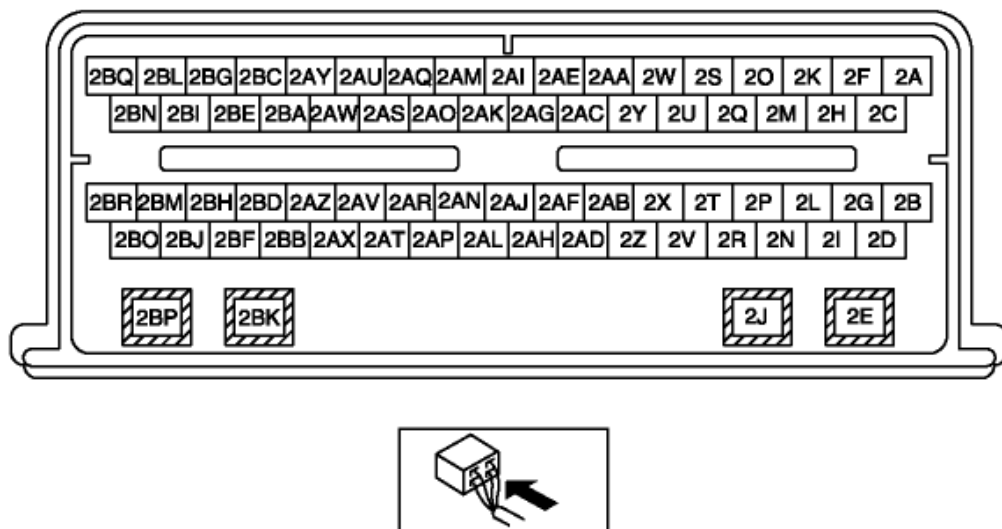
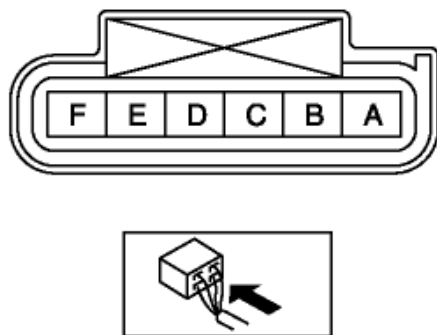
TP SENSOR NO.2 (THROTTLE BODY)

PCM



THROTTLE BODY WIRING HARNESS-SIDE CONNECTOR

PCM 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. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins.
		If the vehicle is not repaired, go to the next step.

		No	Go to the next step.
3	INSPECT TP SENSOR CONNECTOR FOR POOR CONNECTION - Switch the ignition to off. - Disconnect the throttle body 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 9.
		No	Go to the next step.
4	INSPECT TP SENSOR CIRCUIT FOR SHORT TO GROUND - Switch the ignition to ON (Engine off). - Inspect for continuity between the following circuits: - TP sensor terminal D (wiring harness-side) and body ground - TP sensor terminal C (wiring harness-side) and body ground - Are there continuity?	Yes	Repair or replace suspected part, then go to Step 9.
		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition to off. - Disconnect the PCM 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 9.
		No	Go to the next step.
6	INSPECT TP SIGNAL CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between throttle body connector terminal C (wiring harness-side) and PCM terminal 2AL (wiring harness-side). - Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
7	INSPECT TP GROUND CIRCUIT FOR OPEN CIRCUIT - Switch the ignition to off. - Verify the continuity between TP sensor terminal E and body ground. - Is the continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
8	INSPECT TP SENSOR NO.2 Inspect the TP sensor No.2. (See THROTTLE POSITION (TP) SENSOR INSPECTION [MZI 3.7 V6] .)	Yes	Replace the throttle body, then go to the next step.
		No	Go to the next step.

	Is there any malfunction?		
9	VERIFY TROUBLESHOOTING OF DTC P0222:00 HAS BEEN COMPLETED - Make sure to reconnect all disconnected connectors. - Clear the DTC from the PCM memory using the M-MDS. - Start the engine. - Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6] .) - Is same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Go to the next step.
		No	Go to the next step.
10	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	Troubleshooting completed.

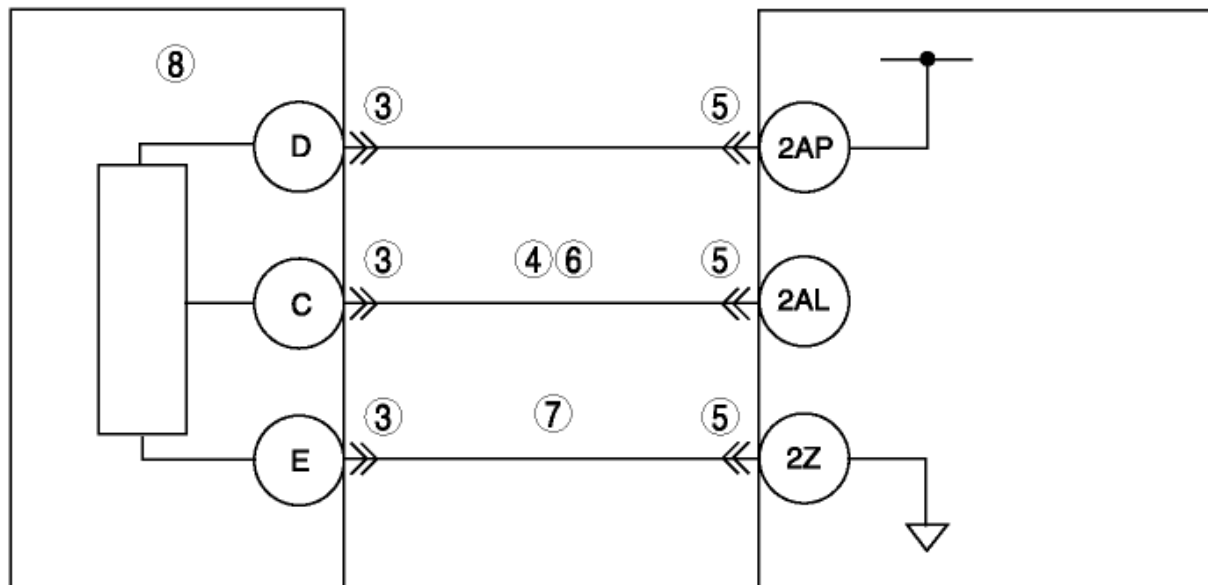
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POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground circuit between throttle body terminal C and PCM terminal 2AL • Open circuit between throttle body terminal C and PCM terminal 2AL • Open circuit between throttle body terminal E and PCM terminal 2Z • TP sensor No.2 malfunction

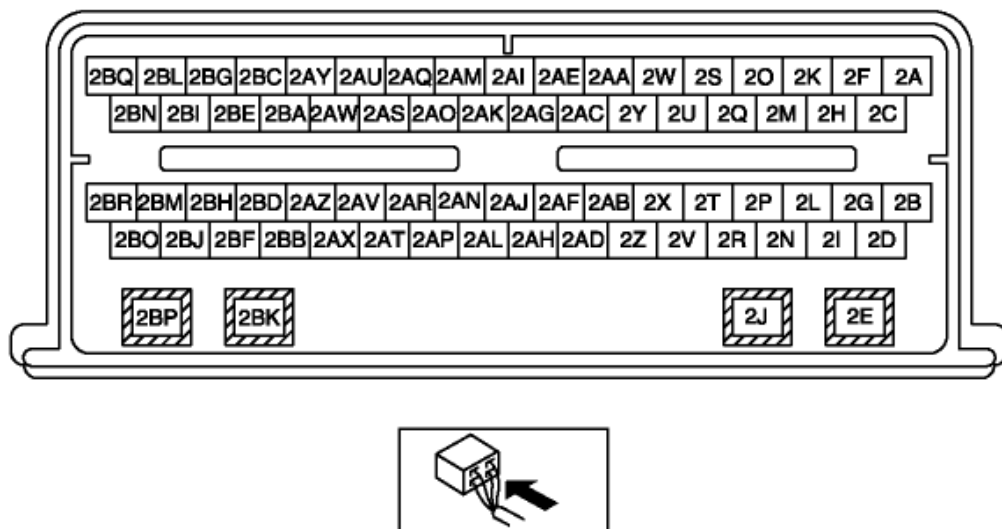
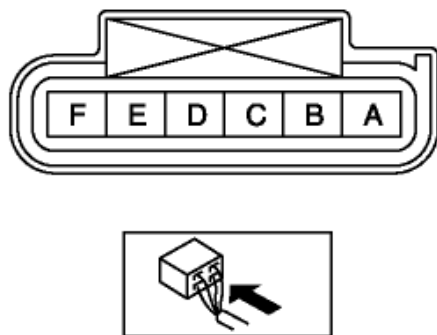
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2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins.
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		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition to off. - Disconnect the PCM 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 9.
		No	Go to the next step.
6	INSPECT TP SIGNAL CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between throttle body connector terminal C (wiring harness-side) and PCM terminal 2AL (wiring harness-side). - Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
7	INSPECT TP GROUND CIRCUIT FOR OPEN CIRCUIT - Switch the ignition to off. - Verify the continuity between TP sensor terminal E and body ground. - Is the continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
8	INSPECT TP SENSOR NO.2 Inspect the TP sensor No.2. (See THROTTLE POSITION (TP) SENSOR INSPECTION [MZI 3.7 V6] .)	Yes	Replace the throttle body, then go to the next step.
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		No	Go to the next step.
10	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	Troubleshooting completed.