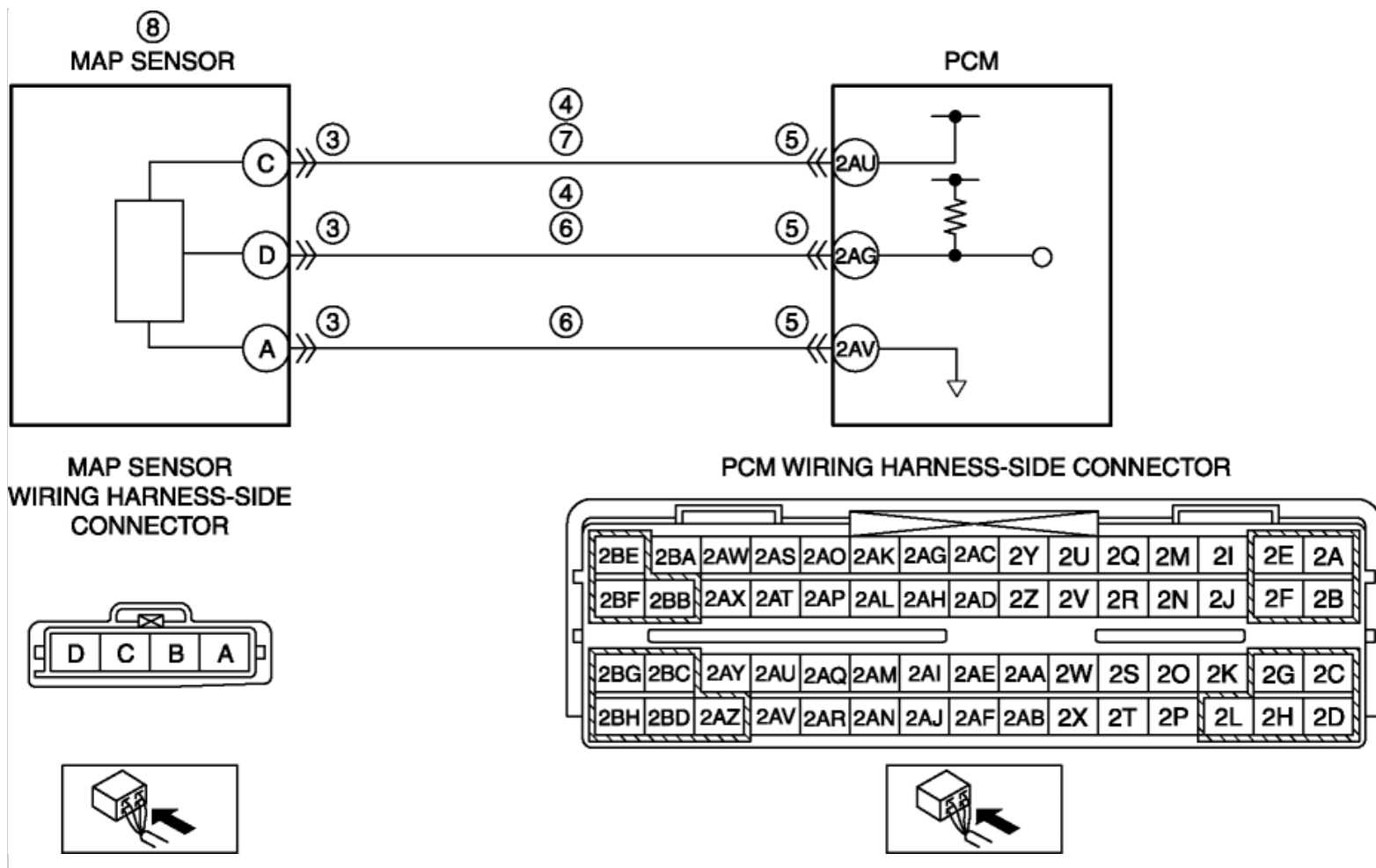


2012 - Mazda6 - Engine

DTC P0107:00 [MZR 2.5]

DTC P0107:00	MAP sensor circuit low input
DETECTI ON CONDI TI ON	• The PCM monitors the input voltage from the MAP sensor. If the input voltage is below 0.1 V for 5 s, the PCM determines that the MAP sensor circuit has a malfunction. Diagnostic support note • This is a continuous monitor (CCM). • The MIL illuminates if the PCM detects the above malfunction condition during first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • The DTC is stored in the PCM memory.
POSSI BLE CAUSE	• MAP sensor connector or terminal malfunction • Short to ground in wiring harness between MAP sensor terminal C and PCM terminal 2AU • Short to ground in wiring harness between MAP sensor terminal D and PCM terminal 2AG • PCM connector or terminal malfunction • Short circuit in MAP sensor signal circuit and ground circuit each other • Open circuit in wiring harness between MAP sensor terminal C and PCM terminal 2AU • MAP sensor malfunction • PCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED Has the FREEZE FRAME DATA (Mode 2)/snapshot data been recorded?	Yes Go to the next step. No Record the FREEZE FRAME DATA (Mode 2)/snapshot 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 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.
3	INSPECT MAP SENSOR CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the MAP sensor 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 9. No Go to the next step.
4	INSPECT MAP SENSOR CIRCUIT FOR SHORT TO GROUND	Yes If the short to ground circuit could be detected:

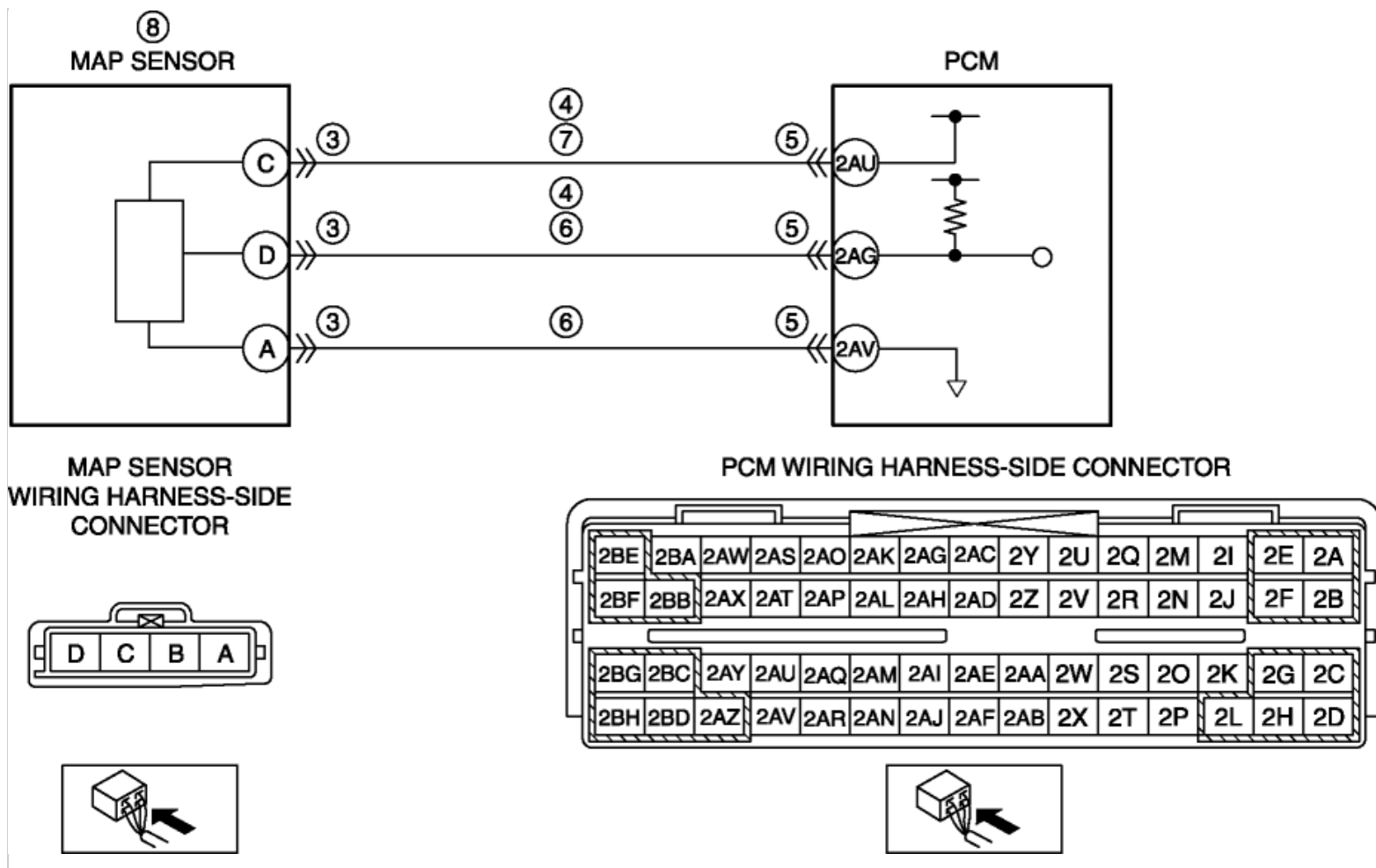
	- MAP sensor connector is disconnected. - Inspect for continuity between the following terminals and body ground: - MAP sensor terminal C (wiring harness-side) - MAP sensor terminal D (wiring harness-side) - Is there continuity?	- Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected: - Replace the PCM (short to ground in PCM internal circuit). (See PCM REMOVAL/ INSTALLATION [MZR 2.5].) Go to Step 9.
		No Go to the next step.
5	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 9. No Go to the next step.
6	INSPECT MAP SENSOR SIGNAL AND GROUND CIRCUITS FOR SHORT EACH OTHER - MAP sensor and PCM connectors are disconnected. - Inspect for continuity between MAP sensor terminals D and A (wiring harness-side). - Is there continuity?	Yes Repair or replace the malfunctioning wiring harness, then go to Step 9. No Go to the next step.
7	INSPECT MAP SENSOR POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT - MAP sensor and PCM connectors are disconnected. - Inspect for continuity between MAP sensor terminal C (wiring harness-side) and PCM terminal 2AU (wiring harness-side). - Is there continuity?	Yes Go to the next step. No Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	INSPECT MAP SENSOR - Reconnect all disconnected connectors. - Inspect the MAP sensor. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes Replace the MAP sensor, then go to the next step. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5].) No Go to the next step.
9	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].) - Perform the KOEO or KOER self test. (See KOEO/ KOER SELF TEST [MZR 2.5].)	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.

	Is the same DTC present?	No	Go to the next step.
10	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.

2012 - Mazda6 - Engine

DTC P0107:00 [MZR 2.5]

DTC P0107:00	MAP sensor circuit low input
DETECTI ON CONDI TI ON	• The PCM monitors the input voltage from the MAP sensor. If the input voltage is below 0.1 V for 5 s, the PCM determines that the MAP sensor circuit has a malfunction. Diagnostic support note • This is a continuous monitor (CCM). • The MIL illuminates if the PCM detects the above malfunction condition during first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • The DTC is stored in the PCM memory.
POSSI BLE CAUSE	• MAP sensor connector or terminal malfunction • Short to ground in wiring harness between MAP sensor terminal C and PCM terminal 2AU • Short to ground in wiring harness between MAP sensor terminal D and PCM terminal 2AG • PCM connector or terminal malfunction • Short circuit in MAP sensor signal circuit and ground circuit each other • Open circuit in wiring harness between MAP sensor terminal C and PCM terminal 2AU • MAP sensor malfunction • PCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED Has the FREEZE FRAME DATA (Mode 2)/snapshot data been recorded?	Yes Go to the next step. No Record the FREEZE FRAME DATA (Mode 2)/snapshot 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 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.
3	INSPECT MAP SENSOR CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the MAP sensor 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 9. No Go to the next step.
4	INSPECT MAP SENSOR CIRCUIT FOR SHORT TO GROUND	Yes If the short to ground circuit could be detected:

	- MAP sensor connector is disconnected. - Inspect for continuity between the following terminals and body ground: - MAP sensor terminal C (wiring harness-side) - MAP sensor terminal D (wiring harness-side) - Is there continuity?	- Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected: - Replace the PCM (short to ground in PCM internal circuit). (See PCM REMOVAL/ INSTALLATION [MZR 2.5].) Go to Step 9.
		No Go to the next step.
5	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 9. No Go to the next step.
6	INSPECT MAP SENSOR SIGNAL AND GROUND CIRCUITS FOR SHORT EACH OTHER - MAP sensor and PCM connectors are disconnected. - Inspect for continuity between MAP sensor terminals D and A (wiring harness-side). - Is there continuity?	Yes Repair or replace the malfunctioning wiring harness, then go to Step 9. No Go to the next step.
7	INSPECT MAP SENSOR POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT - MAP sensor and PCM connectors are disconnected. - Inspect for continuity between MAP sensor terminal C (wiring harness-side) and PCM terminal 2AU (wiring harness-side). - Is there continuity?	Yes Go to the next step. No Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	INSPECT MAP SENSOR - Reconnect all disconnected connectors. - Inspect the MAP sensor. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes Replace the MAP sensor, then go to the next step. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5].) No Go to the next step.
9	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].) - Perform the KOEO or KOER self test. (See KOEO/ KOER SELF TEST [MZR 2.5].)	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.

	Is the same DTC present?	No	Go to the next step.
10	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.