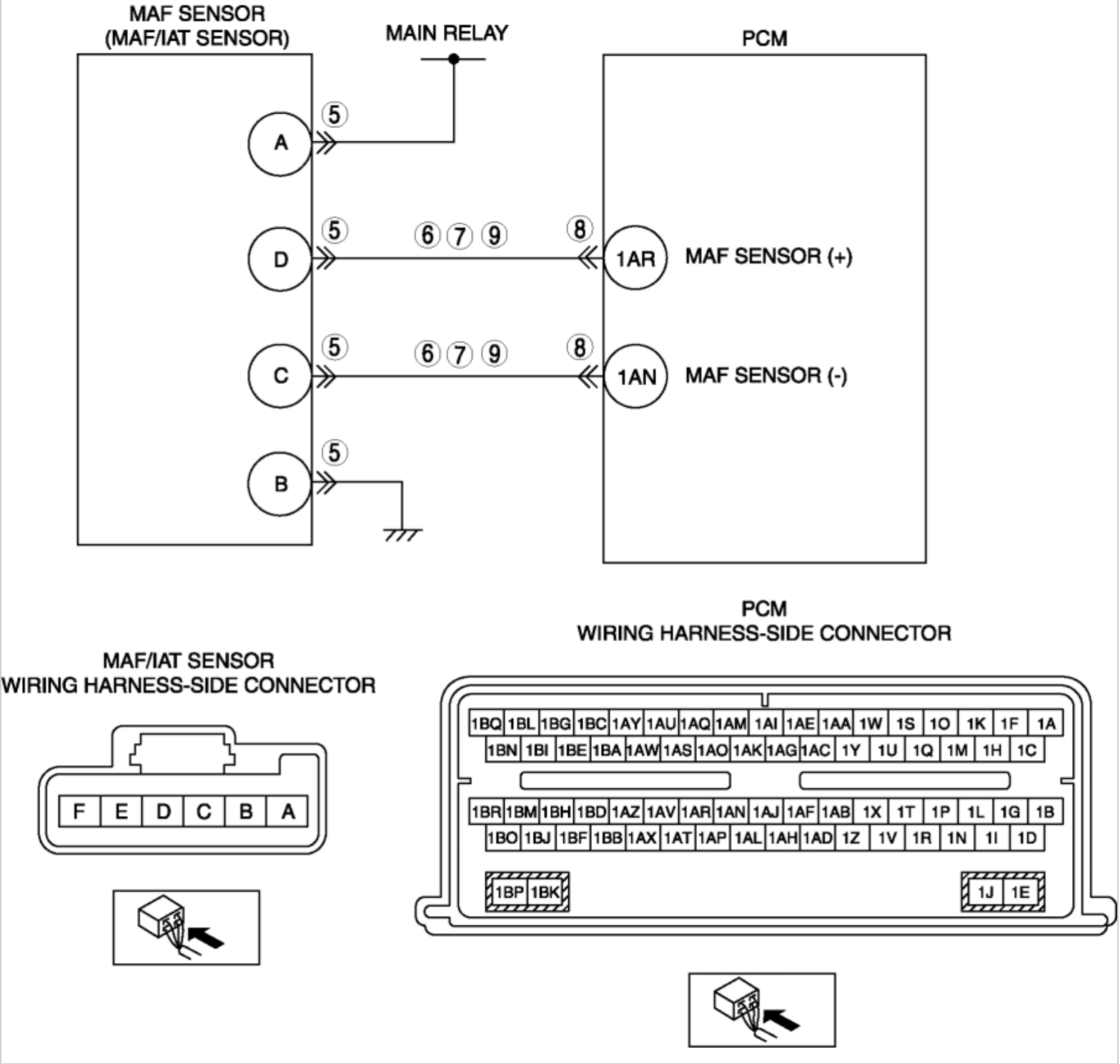


2012 - Mazda6 - Engine

DTC P0104:00 [MZI 3.7 V6]

DTC P0104:00	MAF circuit intermittent/erratic
DETECT I O N C O N D I T I O N	• A concern exists in the MAF sensor circuit, or the air tube containing the sensor, causing an incorrect air flow reading.
P O S S I B L E C A U S E	• Air leaks in the tube from the MAF to the throttle body • Connector or terminal malfunction • Short to power supply in wiring harness between MAF sensor terminal C and PCM terminal 1AN • Short to power supply in wiring harness between MAF sensor terminal D and PCM terminal 1AR • Short to ground circuit between MAF sensor terminal C and PCM terminal 1AN • Short to ground circuit between MAF sensor terminal D and PCM terminal 1AR • Open circuit wiring harness between MAF sensor terminal C and PCM terminal 1AN • Open circuit wiring harness between MAF sensor terminal D and PCM terminal 1AR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	YesGo to the next step.
		NoRecord FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY	YesPerform repair or diagnosis according to available Service Bulletins.

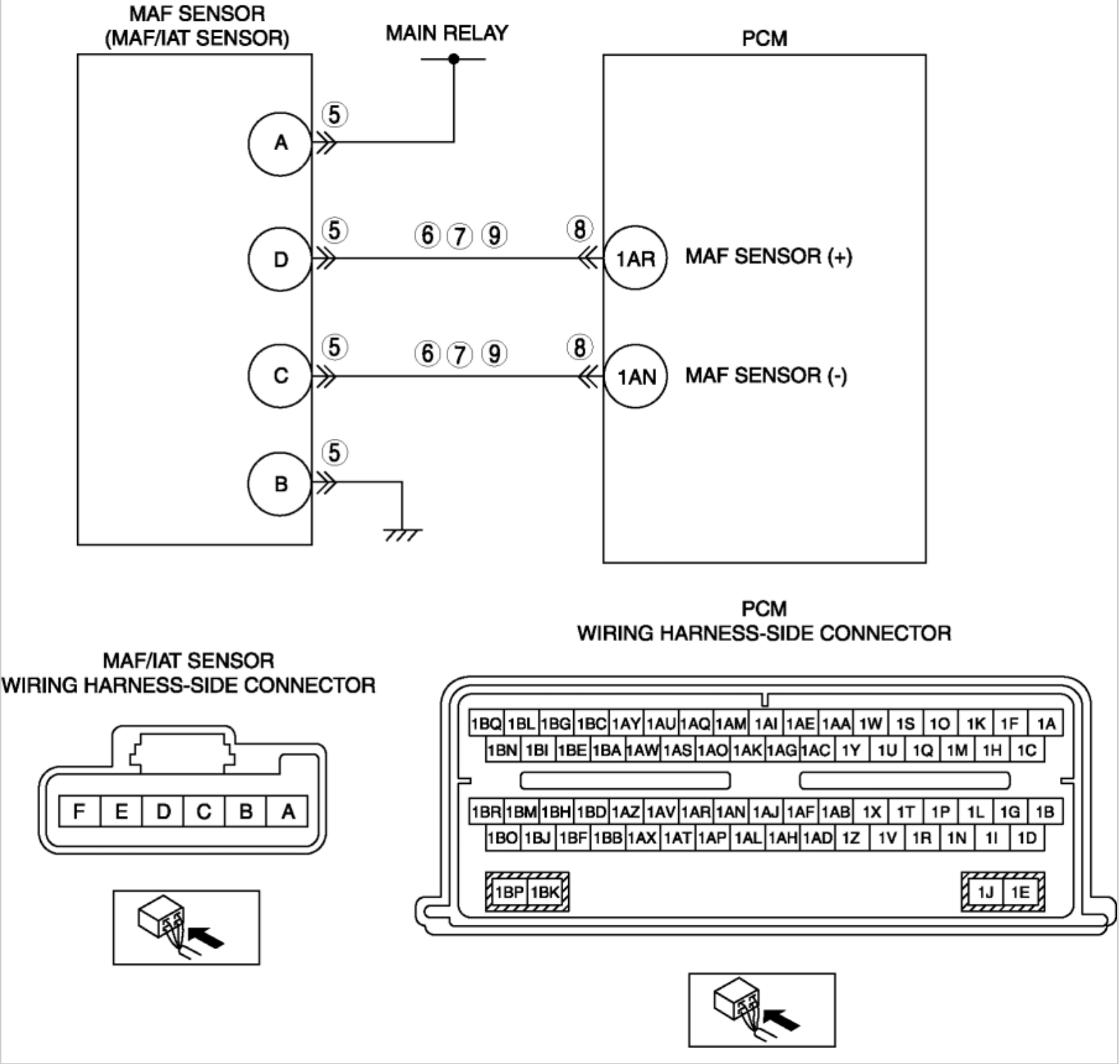
	• Verify related Service Bulletins availability. • Is any related Service Bulletins available?	• If vehicle is not repaired, go to the next step.
		No Go to the next step.
3	VERIFY RELATED PENDING CODE OR STORED DTC • Verify the related PENDING CODE or stored DTCs. • Are other DTCs present?	Yes Go to appropriate DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No Go to the next step.
4	INSPECT AIR SUCTIONING BETWEEN MAF SENSOR AND TP SENSOR • Inspect for major leaks, cracks and openings between MAF sensor and throttle body. • Are there any malfunction?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
5	INSPECT MAF SENSOR CONNECTOR FOR POOR CONNECTION • Switch the ignition to off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there any malfunction?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
6	INSPECT MAF SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY • Switch the ignition to ON (Engine off). • Measure voltage between the following terminals: ▪ MAF sensor terminal C (wiring harness-side) and body ground ▪ MAF sensor terminal D (wiring harness-side) and body ground • Are there voltage B+?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
7	INSPECT MAF SENSOR SIGNAL CIRCUIT FOR SHORT TO GROUND • Switch the ignition to off. • Disconnect the MAF/IAT sensor and PCM connector. • Inspect for continuity between the following circuits: ▪ MAF sensor terminal C (wiring harness-side) and body ground ▪ MAF sensor terminal D (wiring harness-side) and body ground • Are there continuity?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
8	INSPECT PCM CONNECTOR FOR POOR CONNECTION	Yes Repair or replace the malfunctioning part, then go to Step 10.

	• Switch the ignition to off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there any malfunction?	No	Go to the next step.
9	INSPECT MAF SENSOR CIRCUIT FOR OPEN CIRCUIT • Switch the ignition to off. • Disconnect the PCM connector. • Disconnect the MAF/IAT sensor connector. • Inspect for continuity between the following terminals: ▪ MAF sensor terminal C (wiring harness-side) and PCM terminal 1AN (wiring harness-side) ▪ MAF sensor terminal D (wiring harness-side) and PCM terminal 1AR (wiring harness-side) • Are there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0104:00 HAS BEEN COMPLETED • Verify that all disconnected connectors reconnected. • 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.
11	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.

2012 - Mazda6 - Engine

DTC P0104:00 [MZI 3.7 V6]

DTC P0104:00	MAF circuit intermittent/erratic
DETECTI ON CONDI TI ON	• A concern exists in the MAF sensor circuit, or the air tube containing the sensor, causing an incorrect air flow reading.
POSSI BLE CAUSE	• Air leaks in the tube from the MAF to the throttle body • Connector or terminal malfunction • Short to power supply in wiring harness between MAF sensor terminal C and PCM terminal 1AN • Short to power supply in wiring harness between MAF sensor terminal D and PCM terminal 1AR • Short to ground circuit between MAF sensor terminal C and PCM terminal 1AN • Short to ground circuit between MAF sensor terminal D and PCM terminal 1AR • Open circuit wiring harness between MAF sensor terminal C and PCM terminal 1AN • Open circuit wiring harness between MAF sensor terminal D and PCM terminal 1AR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	YesGo to the next step.
		NoRecord FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY	YesPerform repair or diagnosis according to available Service Bulletins.

	• Verify related Service Bulletins availability. • Is any related Service Bulletins available?	• If vehicle is not repaired, go to the next step.
		No Go to the next step.
3	VERIFY RELATED PENDING CODE OR STORED DTC • Verify the related PENDING CODE or stored DTCs. • Are other DTCs present?	Yes Go to appropriate DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No Go to the next step.
4	INSPECT AIR SUCTIONING BETWEEN MAF SENSOR AND TP SENSOR • Inspect for major leaks, cracks and openings between MAF sensor and throttle body. • Are there any malfunction?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
5	INSPECT MAF SENSOR CONNECTOR FOR POOR CONNECTION • Switch the ignition to off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there any malfunction?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
6	INSPECT MAF SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY • Switch the ignition to ON (Engine off). • Measure voltage between the following terminals: ▪ MAF sensor terminal C (wiring harness-side) and body ground ▪ MAF sensor terminal D (wiring harness-side) and body ground • Are there voltage B+?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
7	INSPECT MAF SENSOR SIGNAL CIRCUIT FOR SHORT TO GROUND • Switch the ignition to off. • Disconnect the MAF/IAT sensor and PCM connector. • Inspect for continuity between the following circuits: ▪ MAF sensor terminal C (wiring harness-side) and body ground ▪ MAF sensor terminal D (wiring harness-side) and body ground • Are there continuity?	Yes Repair or replace the malfunctioning part, then go to Step 10.
		No Go to the next step.
8	INSPECT PCM CONNECTOR FOR POOR CONNECTION	Yes Repair or replace the malfunctioning part, then go to Step 10.

	• Switch the ignition to off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there any malfunction?	No	Go to the next step.
9	INSPECT MAF SENSOR CIRCUIT FOR OPEN CIRCUIT • Switch the ignition to off. • Disconnect the PCM connector. • Disconnect the MAF/IAT sensor connector. • Inspect for continuity between the following terminals: ▪ MAF sensor terminal C (wiring harness-side) and PCM terminal 1AN (wiring harness-side) ▪ MAF sensor terminal D (wiring harness-side) and PCM terminal 1AR (wiring harness-side) • Are there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0104:00 HAS BEEN COMPLETED • Verify that all disconnected connectors reconnected. • 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.
11	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.