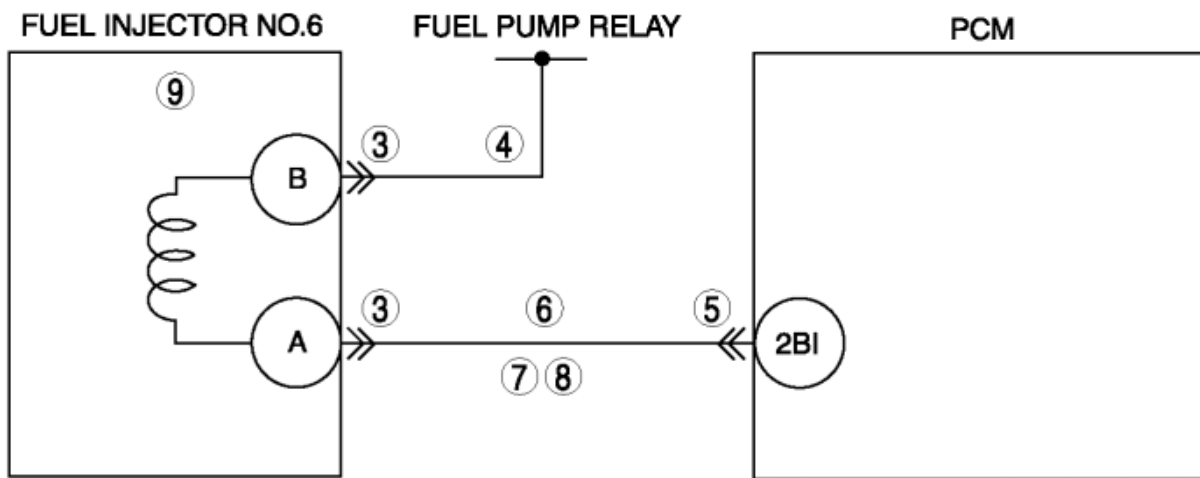


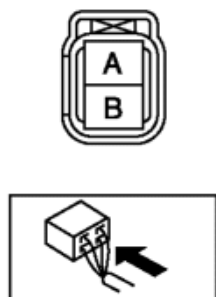
2012 - Mazda6 - Engine

DTC P0206:00 [MZI 3.7 V6]

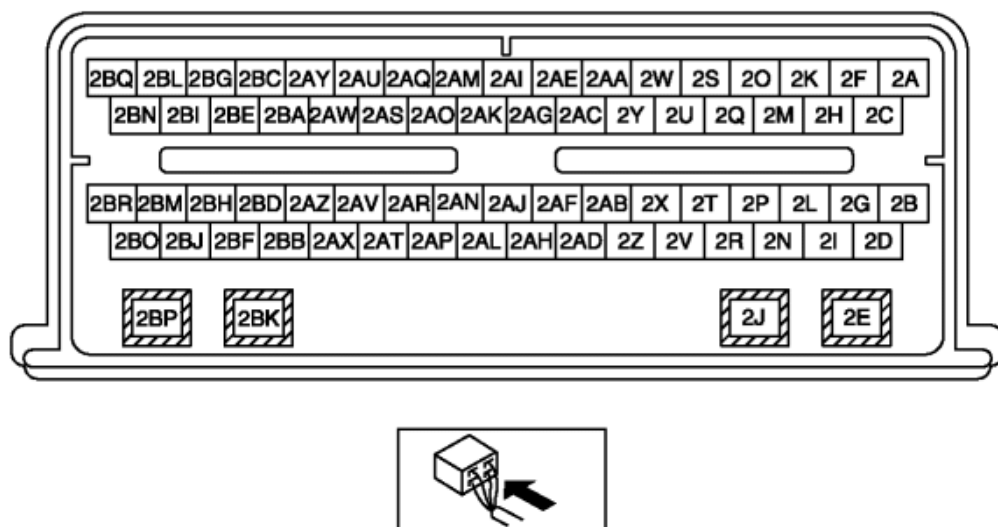
DTC P0206:00	Injector circuit/open—cylinder No.6
DETECTION CONDITION	• The CCM monitors the operation of the fuel injector drivers in the PCM. The test fails if the fuel injector circuitry is inoperative.
POSSIBLE CAUSE	• Fuel injector No.6 connector or terminal malfunction • PCM connector or terminal malfunction • Open circuit between fuel pump relay and fuel injector No.6 terminal B • Open circuit between fuel injector No.6 terminal A and PCM terminal 2BI • Short to ground between fuel injector No.6 terminal A and PCM terminal 2BI • Short to power supply between fuel injector No.6 terminal A and PCM terminal 2BI • Fuel injector No.6 malfunction • PCM malfunction



**FUEL INJECTOR NO.6
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 availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to available Service Bulletins. If vehicle is not repaired, go to the next step.
		No Go to the next step.
3	INSPECT FUEL INJECTOR NO.6 CONNECTOR FOR POOR CONNECTION	Yes Repair or replace suspected part, then go to Step 10.

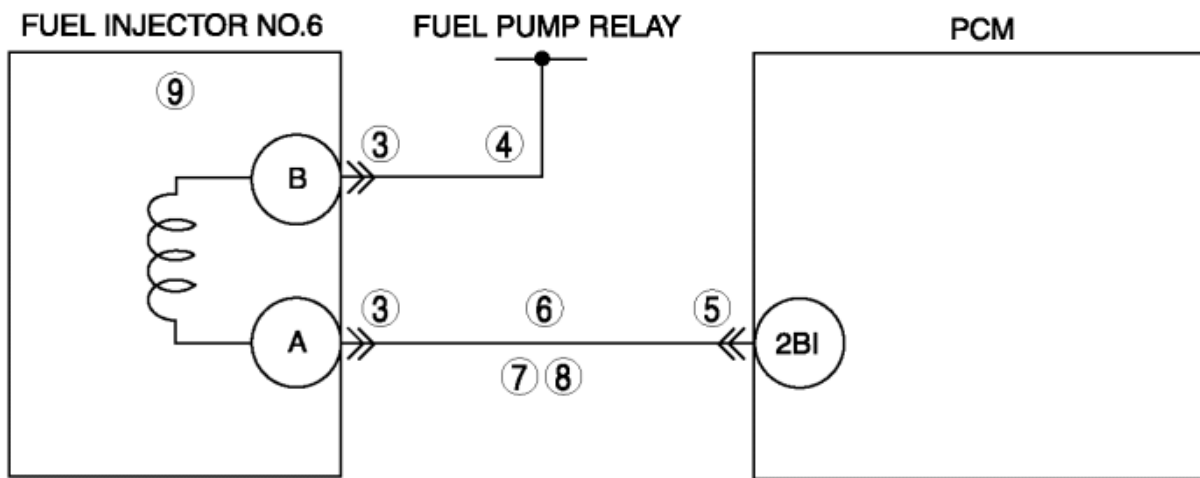
	• Switch the ignition to off. • Disconnect the fuel injector No.6 connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there malfunction?	No	Go to the next step.
4	INSPECT FUEL INJECTOR NO.6 POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT • Fuel injector No.6 connector is disconnected. • Switch the ignition to ON (Engine off). • Measure the voltage between fuel injector No.6 connector terminal B and body ground. • Is the voltage greater than 10 V?	Yes	Go to the next step.
		No	Repair for an open circuit, then go to Step 10.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION • Fuel injector No.6 connector is disconnected. • Switch the ignition to off. • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there malfunction?	Yes	Repair or replace suspected part, then go to Step 10.
		No	Go to the next step.
6	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR OPEN INSPECT FOR OPEN CIRCUIT IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected. • Measure the resistance between fuel injector No.6 terminal A (wiring harness-side) and PCM terminal 2BI (wiring harness-side). • Is the resistance less than 5 ohms?	Yes	Go to the next step.
		No	Repair for an open circuit, then go to Step 10.
7	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR SHORT TO GROUND IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected. • Measure the resistance between fuel injector No.6 connector terminal A (wiring harness-side) and body ground. • Is the resistance greater than 10 kilohms?	Yes	Go to the next step.
		No	Repair for a short circuit, then go to Step 10.
8	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected.	Yes	Repair for a short circuit, then go to Step 10.
		No	Go to the next step.

	- Switch the ignition to ON (Engine off). - Measure the voltage between fuel injector No.6 terminal A (wiring harness-side) and body ground. - Is any voltage present?		
9	INSPECT FUEL INJECTOR NO.6 - Inspect the fuel injector No.6. (See FUEL INJECTOR INSPECTION [MZI 3.7 V6].) - Is there any malfunction?	Yes	Replace the fuel injector No.6, then go to the next step.
		No	Go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0206:00 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.

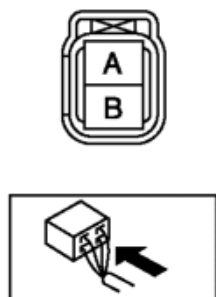
2012 - Mazda6 - Engine

DTC P0206:00 [MZI 3.7 V6]

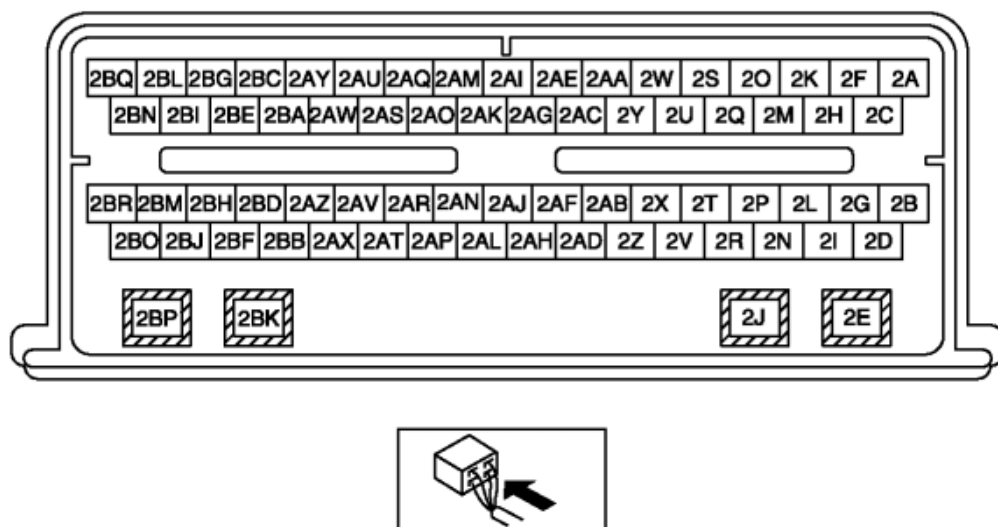
DTC P0206:00	Injector circuit/open—cylinder No.6
DETECTION CONDITION	• The CCM monitors the operation of the fuel injector drivers in the PCM. The test fails if the fuel injector circuitry is inoperative.
POSSI BLE CAUSE	• Fuel injector No.6 connector or terminal malfunction • PCM connector or terminal malfunction • Open circuit between fuel pump relay and fuel injector No.6 terminal B • Open circuit between fuel injector No.6 terminal A and PCM terminal 2BI • Short to ground between fuel injector No.6 terminal A and PCM terminal 2BI • Short to power supply between fuel injector No.6 terminal A and PCM terminal 2BI • Fuel injector No.6 malfunction • PCM malfunction



**FUEL INJECTOR NO.6
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 availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to available Service Bulletins. If vehicle is not repaired, go to the next step.
		No Go to the next step.
3	INSPECT FUEL INJECTOR NO.6 CONNECTOR FOR POOR CONNECTION	Yes Repair or replace suspected part, then go to Step 10.

	• Switch the ignition to off. • Disconnect the fuel injector No.6 connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Are there malfunction?	No	Go to the next step.
4	INSPECT FUEL INJECTOR NO.6 POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT • Fuel injector No.6 connector is disconnected. • Switch the ignition to ON (Engine off). • Measure the voltage between fuel injector No.6 connector terminal B and body ground. • Is the voltage greater than 10 V?	Yes	Go to the next step.
		No	Repair for an open circuit, then go to Step 10.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION • Fuel injector No.6 connector is disconnected. • Switch the ignition to off. • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there malfunction?	Yes	Repair or replace suspected part, then go to Step 10.
		No	Go to the next step.
6	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR OPEN INSPECT FOR OPEN CIRCUIT IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected. • Measure the resistance between fuel injector No.6 terminal A (wiring harness-side) and PCM terminal 2BI (wiring harness-side). • Is the resistance less than 5 ohms?	Yes	Go to the next step.
		No	Repair for an open circuit, then go to Step 10.
7	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR SHORT TO GROUND IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected. • Measure the resistance between fuel injector No.6 connector terminal A (wiring harness-side) and body ground. • Is the resistance greater than 10 kilohms?	Yes	Go to the next step.
		No	Repair for a short circuit, then go to Step 10.
8	INSPECT FUEL INJECTOR NO.6 SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY IN WIRING HARNESS • Fuel injector No.6 and PCM connectors are disconnected.	Yes	Repair for a short circuit, then go to Step 10.
		No	Go to the next step.

	- Switch the ignition to ON (Engine off). - Measure the voltage between fuel injector No.6 terminal A (wiring harness-side) and body ground. - Is any voltage present?		
9	INSPECT FUEL INJECTOR NO.6 - Inspect the fuel injector No.6. (See FUEL INJECTOR INSPECTION [MZI 3.7 V6].) - Is there any malfunction?	Yes	Replace the fuel injector No.6, then go to the next step.
		No	Go to the next step.
10	VERIFY TROUBLESHOOTING OF DTC P0206:00 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.