

2012 - Mazda6 - Engine

DTC P0300:00 [MZR 2.5]

DTC P0300:00	Random misfire detected
DETECTION CONDITION	• The PCM monitors CKP sensor input signal interval time. The PCM calculates the change of interval time for each cylinder. If the change of interval time exceeds the preprogrammed criteria, the PCM detects a misfire in the corresponding cylinder. While the engine is running, the PCM counts the number of misfires that occurred at 200 crankshaft revolutions and 1,000 crankshaft revolutions and calculates the misfire ratio for each crankshaft revolution. If the ratio exceeds the preprogrammed criteria, the PCM determines that a misfire, which can damage the catalytic converter or affect emission performance, has occurred. Diagnostic support note • This is a continuous monitor (misfire). • The MIL illuminates if the PCM detects the misfire which affects emission performance in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. • The MIL flashes if the PCM detects a misfire which can damage the catalytic converter during the first drive cycle. • PENDING CODE is available if the PCM detects the misfire which affects emission performance during first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • The DTC is stored in the PCM memory.
	• Erratic signal to PCM ▪ APP sensor signal malfunction ▪ ECT sensor signal malfunction ▪ IAT sensor signal malfunction ▪ MAF sensor signal malfunction ▪ CKP sensor signal malfunction ▪ TP sensor signal malfunction ▪ VSS signal malfunction

**POSSIBLE
CAUSE**

- CMP sensor connector or terminal malfunction
- CMP sensor malfunction
- CKP sensor connector or terminal malfunction
- CKP sensor malfunction
- Ignition system malfunction
 - Spark plug malfunction
 - Ignition coil related wiring harness malfunction
 - Ignition coil malfunction
- MAF sensor malfunction
- Excessive air suction in intake air system (between MAF sensor and intake manifold)
 - Vacuum hose damaged
 - Pipe malfunction
- Fuel supply system malfunction or improper fuel line pressure
 - Fuel leakage in fuel line
 - Clogged or restricted fuel filter
 - Fuel pressure regulator (built-in fuel pump unit) malfunction
 - Fuel runout
 - Fuel pump malfunction
- Purge solenoid valve malfunction
- Variable valve timing control system improper operation
- Fuel injector malfunction
- EGR valve malfunction
- Engine malfunction
 - Insufficient engine compression
 - Engine coolant leakage
- PCV valve malfunction
- Poor quality fuel
- PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION

1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA AND DIAGNOSTIC MONITORING TEST RESULTS HAVE BEEN RECORDED Have the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS (misfire related) been recorded?	Yes	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	VERIFY RELATED PENDING AND STORED DTC - Switch the ignition to off, then to ON (engine off). - Verify pending and stored DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Are any other DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	Go to the next step.
4	VERIFY CURRENT INPUT SIGNAL STATUS - Access the following PIDs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - APP1 - APP2 - ECT - IAT - MAF - RPM - TP REL - VSS - Is there any signal that is far out of specification when switch the ignition to ON and the engine idles? (See PCM INSPECTION [MZR 2.5].)	Yes	Inspect the suspected sensor and related wiring harness. Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.
		No	Go to the next step.

5	VERIFY CURRENT INPUT SIGNAL STATUS UNDER FREEZE FRAME DATA (MODE 2) CONDITION	Yes	Inspect the suspected sensor and related wiring harness. Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.
	CAUTION: • While performing this step, always operate the vehicle in a safe and lawful manner. • When the M-MDS is used to observe monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later. • Access the following PIDs under the FREEZE FRAME DATA (Mode 2) condition. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) ▪ APP1 ▪ APP2 ▪ ECT ▪ IAT ▪ MAF ▪ RPM ▪ TP REL ▪ VSS • Is there any signal which causes drastic changes?	No	Go to the next step.
6	INSPECT CMP SENSOR CONNECTOR CONDITION • Switch the ignition to off. • Disconnect the CMP 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 26.
		No	Go to the next step.
7	INSPECT CMP SENSOR • Inspect the CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the CMP sensor, then go to Step 26. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5] .)

		No	Go to the next step.
8	INSPECT CKP SENSOR CONNECTOR CONDITION • Disconnect the CKP 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 26.
		No	Go to the next step.
9	INSPECT CKP SENSOR • Inspect the CKP sensor. (See CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the CKP sensor, then go to Step 26. (See CRANKSHAFT POSITION (CKP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5].)
		No	Go to the next step.
10	INSPECT IGNITION SYSTEM OPERATION • Perform the Spark Test. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is strong blue spark visible at each cylinder?	Yes	Go to Step 14.
		No	Go to the next step.
11	INSPECT SPARK PLUG CONDITION • Remove the spark plug. (See SPARK PLUG REMOVAL/ INSTALLATION [MZR 2.5].) • Inspect the spark plug. (See SPARK PLUG INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the spark plug, then go to Step 26. (See SPARK PLUG REMOVAL/ INSTALLATION [MZR 2.5].)
		No	Go to the next step.
12	INSPECT IGNITION COIL RELATED WIRING HARNESS • Inspect the ignition coil related wiring harness condition (intermittent open or short) for all cylinders. • Is there any malfunction?	Yes	Repair or replace the malfunctioning wiring harness, then go to Step 26.
		No	Go to the next step.
13	INSPECT IGNITION COIL • Inspect the ignition coil for all cylinders. (See IGNITION COIL INSPECTION [MZR 2.5].)	Yes	Replace the malfunctioning ignition coil, then go to Step 26. (See IGNITION COIL REMOVAL/ INSTALLATION [MZR 2.5].)

	Is there any malfunction?	No	Go to the next step.
14	VERIFY PID DATA FOR MAF SENSOR MALFUNCTION - Access the MAF PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Race the engine and verify that the MAF PID changes quickly according to change in the engine speed. - Is the MAF PID response normal?	Yes	Go to Step 16.
		No	Go to the next step.
15	INSPECT INTAKE AIR SYSTEM FOR AIR SUCTION - Inspect for air leakage between the following: - MAF sensor and throttle body - Throttle body and intake manifold NOTE: - Engine speed may change when rust penetrating agent is sprayed on the air suction area. - Is there any leakage?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Replace the MAF/IAT sensor, then go to Step 26. (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZR 2.5] .)
16	INSPECT FUEL LINE PRESSURE - Inspect the fuel line pressure. (See FUEL LINE PRESSURE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Go to the next step.
		No	Go to Step 19.
17	INSPECT FUEL LINE LEAKAGE - Visually inspect the leakage from fuel line. - Is there any leakage?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Go to the next step.
18	INSPECT FUEL FILTER - Visually inspect the foreign materials or stain inside fuel filter. - Is there any foreign materials or stain?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Replace the fuel pump unit, then go to Step 26. (See FUEL PUMP UNIT

			REMOVAL/ INSTALLATION [MZR 2.5].)
19	VERIFY SIMULATION ITEM FOR PURGE SOLENOID VALVE MALFUNCTION • Switch the ignition to off. • Connect the vacuum pump to the purge solenoid valve and apply vacuum to the solenoid. • Verify that the solenoid holds vacuum. • Switch the ignition to ON (engine off). • Access the EVAPCP PID in SIMULATION TEST using the M-MDS. • Set the purge solenoid value to 100 % for the EVAPCP PID. • Verify that the purge solenoid value releases vacuum while the 100 % for the EVPCP PID. • Is the purge solenoid valve operation normal?	Yes Go to the next step.	No Replace the purge solenoid valve, then go to Step 26. (See PURGE SOLENOID VALVE REMOVAL/ INSTALLATION [MZR 2.5].)
20	INSPECT VARIABLE VALVE TIMING CONTROL SYSTEM OPERATION • Perform the Variable Valve Timing Control System Operation Inspection. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes Repair or replace the malfunctioning part according to inspection results, then go to Step 26.	No Go to the next step.
21	INSPECT FUEL INJECTOR OPERATION • Perform the Fuel Injector Operation Inspection. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.	No Go to the next step.
22	INSPECT EGR VALVE • Remove the EGR valve. (See EGR VALVE REMOVAL/ INSTALLATION [MZR 2.5].) • Visually inspect if the EGR valve is stuck open. • Is there any malfunction?	Yes Replace the EGR valve, then go to Step 26. (See EGR VALVE REMOVAL/ INSTALLATION [MZR 2.5].)	No Go to the next step.
	INSPECT ENGINE COMPRESSION		

23	- Inspect the engine compression. (See COMPRESSION INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Perform the engine overhaul for repairs, then go to Step 26.
		No	Go to the next step.
24	INSPECT SEALING OF ENGINE COOLANT PASSAGE - Perform the "ENGINE COOLANT LEAKAGE INSPECTION". (See ENGINE COOLANT LEAKAGE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Go to the next step.
25	INSPECT PCV VALVE OPERATION - Remove the PCV valve. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/ INSTALLATION [MZR 2.5].) - Inspect the PCV valve operation. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Replace the PCV valve and the oil separator as a single unit, then go to the next step. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/ INSTALLATION [MZR 2.5] .)
		No	Go to the next step.
26	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].) - Start the engine and warm it up completely. - Perform the KOER self test. (See KOEO/ KOER SELF TEST [MZR 2.5].) - Is the PENDING CODE for this DTC present?	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.
		No	Go to the next step.
27	VERIFY AFTER REPAIR PROCEDURE Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZR 2.5].)	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	DTC troubleshooting completed.

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| | <ul style="list-style-type: none">• Are any DTCs present? | | |
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DETECTION CONDITION	• The PCM monitors CKP sensor input signal interval time. The PCM calculates the change of interval time for each cylinder. If the change of interval time exceeds the preprogrammed criteria, the PCM detects a misfire in the corresponding cylinder. While the engine is running, the PCM counts the number of misfires that occurred at 200 crankshaft revolutions and 1,000 crankshaft revolutions and calculates the misfire ratio for each crankshaft revolution. If the ratio exceeds the preprogrammed criteria, the PCM determines that a misfire, which can damage the catalytic converter or affect emission performance, has occurred. Diagnostic support note • This is a continuous monitor (misfire). • The MIL illuminates if the PCM detects the misfire which affects emission performance in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. • The MIL flashes if the PCM detects a misfire which can damage the catalytic converter during the first drive cycle. • PENDING CODE is available if the PCM detects the misfire which affects emission performance during first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • The DTC is stored in the PCM memory.
	• Erratic signal to PCM ▪ APP sensor signal malfunction ▪ ECT sensor signal malfunction ▪ IAT sensor signal malfunction ▪ MAF sensor signal malfunction ▪ CKP sensor signal malfunction ▪ TP sensor signal malfunction ▪ VSS signal malfunction

**POSSIBLE
CAUSE**

- CMP sensor connector or terminal malfunction
- CMP sensor malfunction
- CKP sensor connector or terminal malfunction
- CKP sensor malfunction
- Ignition system malfunction
 - Spark plug malfunction
 - Ignition coil related wiring harness malfunction
 - Ignition coil malfunction
- MAF sensor malfunction
- Excessive air suction in intake air system (between MAF sensor and intake manifold)
 - Vacuum hose damaged
 - Pipe malfunction
- Fuel supply system malfunction or improper fuel line pressure
 - Fuel leakage in fuel line
 - Clogged or restricted fuel filter
 - Fuel pressure regulator (built-in fuel pump unit) malfunction
 - Fuel runout
 - Fuel pump malfunction
- Purge solenoid valve malfunction
- Variable valve timing control system improper operation
- Fuel injector malfunction
- EGR valve malfunction
- Engine malfunction
 - Insufficient engine compression
 - Engine coolant leakage
- PCV valve malfunction
- Poor quality fuel
- PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION

1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA AND DIAGNOSTIC MONITORING TEST RESULTS HAVE BEEN RECORDED Have the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS (misfire related) been recorded?	Yes	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	VERIFY RELATED PENDING AND STORED DTC - Switch the ignition to off, then to ON (engine off). - Verify pending and stored DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Are any other DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	Go to the next step.
4	VERIFY CURRENT INPUT SIGNAL STATUS - Access the following PIDs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - APP1 - APP2 - ECT - IAT - MAF - RPM - TP REL - VSS - Is there any signal that is far out of specification when switch the ignition to ON and the engine idles? (See PCM INSPECTION [MZR 2.5].)	Yes	Inspect the suspected sensor and related wiring harness. Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.
		No	Go to the next step.

5	VERIFY CURRENT INPUT SIGNAL STATUS UNDER FREEZE FRAME DATA (MODE 2) CONDITION	Yes	Inspect the suspected sensor and related wiring harness. Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.
	CAUTION: • While performing this step, always operate the vehicle in a safe and lawful manner. • When the M-MDS is used to observe monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later. • Access the following PIDs under the FREEZE FRAME DATA (Mode 2) condition. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) ▪ APP1 ▪ APP2 ▪ ECT ▪ IAT ▪ MAF ▪ RPM ▪ TP REL ▪ VSS • Is there any signal which causes drastic changes?	No	Go to the next step.
6	INSPECT CMP SENSOR CONNECTOR CONDITION • Switch the ignition to off. • Disconnect the CMP 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 26.
		No	Go to the next step.
7	INSPECT CMP SENSOR • Inspect the CMP sensor. (See CAMSHAFT POSITION (CMP) SENSOR INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the CMP sensor, then go to Step 26. (See CAMSHAFT POSITION (CMP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5] .)

		No	Go to the next step.
8	INSPECT CKP SENSOR CONNECTOR CONDITION • Disconnect the CKP 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 26.
		No	Go to the next step.
9	INSPECT CKP SENSOR • Inspect the CKP sensor. (See CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the CKP sensor, then go to Step 26. (See CRANKSHAFT POSITION (CKP) SENSOR REMOVAL/ INSTALLATION [MZR 2.5].)
		No	Go to the next step.
10	INSPECT IGNITION SYSTEM OPERATION • Perform the Spark Test. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is strong blue spark visible at each cylinder?	Yes	Go to Step 14.
		No	Go to the next step.
11	INSPECT SPARK PLUG CONDITION • Remove the spark plug. (See SPARK PLUG REMOVAL/ INSTALLATION [MZR 2.5].) • Inspect the spark plug. (See SPARK PLUG INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes	Replace the spark plug, then go to Step 26. (See SPARK PLUG REMOVAL/ INSTALLATION [MZR 2.5].)
		No	Go to the next step.
12	INSPECT IGNITION COIL RELATED WIRING HARNESS • Inspect the ignition coil related wiring harness condition (intermittent open or short) for all cylinders. • Is there any malfunction?	Yes	Repair or replace the malfunctioning wiring harness, then go to Step 26.
		No	Go to the next step.
13	INSPECT IGNITION COIL • Inspect the ignition coil for all cylinders. (See IGNITION COIL INSPECTION [MZR 2.5].)	Yes	Replace the malfunctioning ignition coil, then go to Step 26. (See IGNITION COIL REMOVAL/ INSTALLATION [MZR 2.5].)

	Is there any malfunction?	No	Go to the next step.
14	VERIFY PID DATA FOR MAF SENSOR MALFUNCTION - Access the MAF PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZR 2.5].) - Race the engine and verify that the MAF PID changes quickly according to change in the engine speed. - Is the MAF PID response normal?	Yes	Go to Step 16.
		No	Go to the next step.
15	INSPECT INTAKE AIR SYSTEM FOR AIR SUCTION - Inspect for air leakage between the following: - MAF sensor and throttle body - Throttle body and intake manifold NOTE: - Engine speed may change when rust penetrating agent is sprayed on the air suction area. - Is there any leakage?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Replace the MAF/IAT sensor, then go to Step 26. (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZR 2.5] .)
16	INSPECT FUEL LINE PRESSURE - Inspect the fuel line pressure. (See FUEL LINE PRESSURE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Go to the next step.
		No	Go to Step 19.
17	INSPECT FUEL LINE LEAKAGE - Visually inspect the leakage from fuel line. - Is there any leakage?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Go to the next step.
18	INSPECT FUEL FILTER - Visually inspect the foreign materials or stain inside fuel filter. - Is there any foreign materials or stain?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Replace the fuel pump unit, then go to Step 26. (See FUEL PUMP UNIT

			REMOVAL/ INSTALLATION [MZR 2.5].)
19	VERIFY SIMULATION ITEM FOR PURGE SOLENOID VALVE MALFUNCTION • Switch the ignition to off. • Connect the vacuum pump to the purge solenoid valve and apply vacuum to the solenoid. • Verify that the solenoid holds vacuum. • Switch the ignition to ON (engine off). • Access the EVAPCP PID in SIMULATION TEST using the M-MDS. • Set the purge solenoid value to 100 % for the EVAPCP PID. • Verify that the purge solenoid value releases vacuum while the 100 % for the EVPCP PID. • Is the purge solenoid valve operation normal?	Yes Go to the next step.	No Replace the purge solenoid valve, then go to Step 26. (See PURGE SOLENOID VALVE REMOVAL/ INSTALLATION [MZR 2.5].)
20	INSPECT VARIABLE VALVE TIMING CONTROL SYSTEM OPERATION • Perform the Variable Valve Timing Control System Operation Inspection. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes Repair or replace the malfunctioning part according to inspection results, then go to Step 26.	No Go to the next step.
21	INSPECT FUEL INJECTOR OPERATION • Perform the Fuel Injector Operation Inspection. (See ENGINE CONTROL SYSTEM OPERATION INSPECTION [MZR 2.5].) • Is there any malfunction?	Yes Repair or replace the malfunctioning part according to the inspection results, then go to Step 26.	No Go to the next step.
22	INSPECT EGR VALVE • Remove the EGR valve. (See EGR VALVE REMOVAL/ INSTALLATION [MZR 2.5].) • Visually inspect if the EGR valve is stuck open. • Is there any malfunction?	Yes Replace the EGR valve, then go to Step 26. (See EGR VALVE REMOVAL/ INSTALLATION [MZR 2.5].)	No Go to the next step.
	INSPECT ENGINE COMPRESSION		

23	- Inspect the engine compression. (See COMPRESSION INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Perform the engine overhaul for repairs, then go to Step 26.
		No	Go to the next step.
24	INSPECT SEALING OF ENGINE COOLANT PASSAGE - Perform the "ENGINE COOLANT LEAKAGE INSPECTION". (See ENGINE COOLANT LEAKAGE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Repair or replace the malfunctioning part according to inspection results, then go to Step 26.
		No	Go to the next step.
25	INSPECT PCV VALVE OPERATION - Remove the PCV valve. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/ INSTALLATION [MZR 2.5].) - Inspect the PCV valve operation. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE INSPECTION [MZR 2.5].) - Is there any malfunction?	Yes	Replace the PCV valve and the oil separator as a single unit, then go to the next step. (See POSITIVE CRANKCASE VENTILATION (PCV) VALVE REMOVAL/ INSTALLATION [MZR 2.5] .)
		No	Go to the next step.
26	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].) - Start the engine and warm it up completely. - Perform the KOER self test. (See KOEO/ KOER SELF TEST [MZR 2.5].) - Is the PENDING CODE for this DTC present?	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.
		No	Go to the next step.
27	VERIFY AFTER REPAIR PROCEDURE Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZR 2.5].)	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZR 2.5] .)
		No	DTC troubleshooting completed.

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| | <ul style="list-style-type: none">• Are any DTCs present? | | |
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