

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

**Subject:**

CHECK ENGINE LIGHT ON WITH DTC P0126:00

Bulletin No.: 01-005/23

Last Issued : 12/20/2023

BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted below in Red.

Previously Issued TSBs:	Date(s) Issued
01-005/23	02/16/23
01-013/22	10/19/22
01-011/21	09/27/21 and 04/22/21

APPLICABLE MODEL(S)/VINS

2019-2023 Mazda3 (Japan built) with VINs lower than JM1BP*****623951 (produced before May 23, 2023)
2019-2023 Mazda3 (Mexico built) with VINs lower than 3MZBP*****385892 (produced before Sep. 11, 2023)
2021 Mazda3 (M/T) with VINs between JM1BP*****400001 and 400820 (produced on July 2, 2021)
2018-2021 Mazda6 with VINs lower than JM1GL*****620105 (produced before Nov. 12, 2021)
2019-2020 Mazda6 (Mexico spec) with VINs lower than JM1GL*****524069 (produced before March 27, 2020)
2019-2022 CX-3 with VINs lower than JM1DK*****606638 (produced before July 11, 2022)
2018-2020 CX-5 (US/Mexico spec.) with VINs lower than JM3KF*****869654 (produced before Aug. 24, 2020)
2021 CX-5 (Canada/Mexico spec.) with VINs lower than JM3KF*****133782 (produced before June 18, 2021)
2021-2024 CX-5
2020-2023 CX-30 with VINs lower than 3MVDM*****589428 (produced before Sep. 26, 2023)

NOTE: Vehicles with SKYACTIV-G 2.5T (turbo) are not applicable.

DESCRIPTION

Some customers may experience the check engine light ON with DTC P0126:00 (Thermostat stuck open) and one or more of the following symptoms:

- The engine takes longer to warm up
- The engine temperature gauge fluctuates
- The low coolant temperature indicator (blue) light stays on longer or comes on while driving
- Poor heater performance, especially at idle

NOTE:

- Vehicles with SKYACTIV-G 2.5T are not applicable.
- If DTC P2B61:00 (Coolant control valve circuit range/performance) accompanies DTC P0126:00, this TSB is not

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applicable. Diagnose according to the instructions on MGSS online.

Customers having this concern should have their vehicle repaired using the following repair procedure.

REPAIR PROCEDURE

1. Verify customer concerns and check the coolant temperature in the freeze frame data.

- If it is at around 104-176 °F (40-80 °C), proceed to step 2.
- If it is not at around 104-176 °F (40-80 °C), this TSB is not applicable. Diagnose according to the instruction on MGSS.

2. Replace the coolant control valve with a new one according to the instruction on MGSS (COOLANT CONTROL VALVE REMOVAL/INSTALLATION).

- Mazda3 (COOLANT CONTROL VALVE REMOVAL/INSTALLATION)
- Mazda6 (COOLANT CONTROL VALVE REMOVAL/INSTALLATION)
- CX-3 (COOLANT CONTROL VALVE REMOVAL/INSTALLATION)
- CX-5 (COOLANT CONTROL VALVE REMOVAL/INSTALLATION)
- CX-30 (COOLANT CONTROL VALVE REMOVAL/INSTALLATION)

3. Warm up the engine and confirm that the primary malfunction is resolved according to the instruction on MGSS (Repeatability verification procedure in the DTC P0126:00 [PCM]).

- Mazda3 (DTC P0126:00 [PCM (SKYACTIV-G)])
- Mazda6 (DTC P0126:00 [PCM (SKYACTIV-G)])
- CX-3 (DTC P0126:00 [PCM (SKYACTIV-G)])
- CX-5 (DTC P0126:00 [PCM (SKYACTIV-G)])
- CX-30 (DTC P0126:00 [PCM (SKYACTIV-G)])

4. Verify repair.

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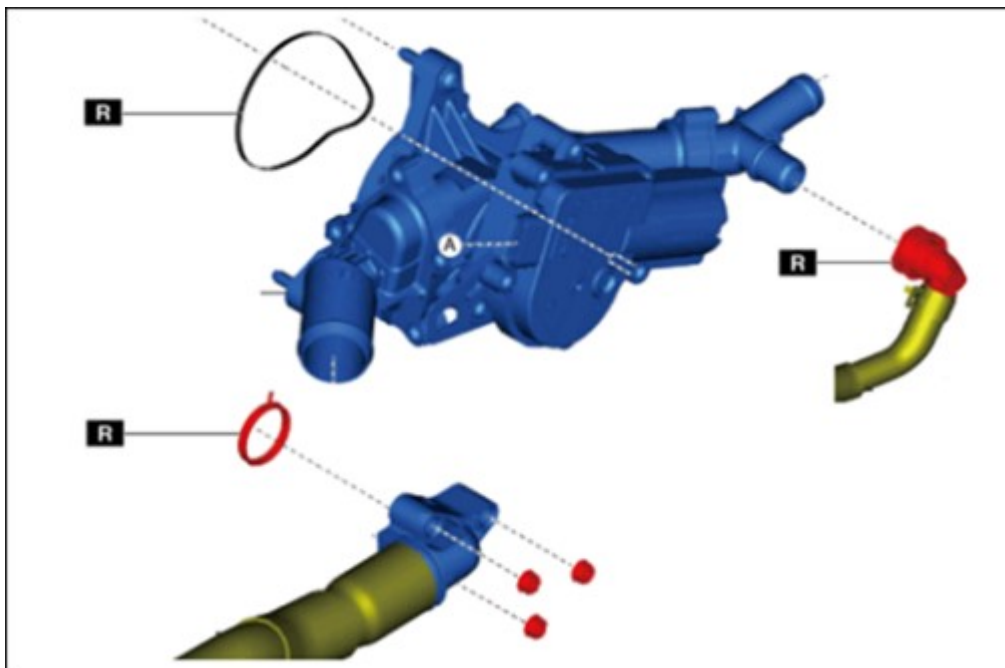
PARTS INFORMATION

Parts Number	Description	Qty.	Notes
PYFD-15-16ZA	Valve, Water Control	1	For A/T, O-ring included
PYFA-15-16ZB	Valve, Water Control	1	For M/T, O-ring included
PYFB-15-169	Gasket, Water Outlet	1	[R] for Lower radiator hose component
PE13-15-296	Connector	1	[R] for water hose for A/T oil cooler
PYFA-15-592A	O-Ring (Water Outlet)	1	[R] for ECT sensor No.2
PYFB-15-113	Washer	1	[R] for ECT sensor No.2
0000-77-508E-20	Coolant	as needed	7.8 US qt (7.4L, 6.5 Imp qt) maximum

[R]: Replacement parts

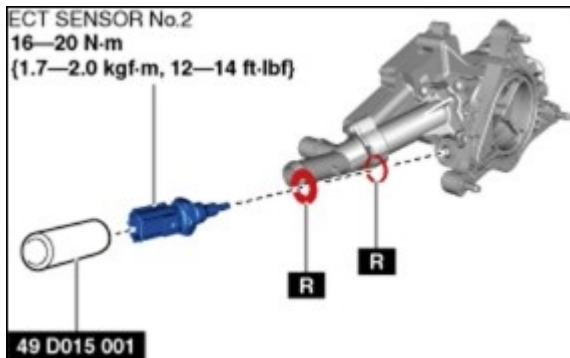
Replacement Part Locations

- O-ring
- Gasket
- Connector



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- O-ring and washer for ECT sensor No.2



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WARRANTY INFORMATION**NOTE:**

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's Powertrain Warranty term, Calif. Emission Warranty (long term) [except 2018 Mazda6, 2019 CX-3 and 2018 CX-5], or Calif. Emission Warranty (short term) [2018 Mazda6, 2019 CX-3 and 2018 CX-5]
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	6X
Damage Code	9K
Part Number Main Cause	PYFD-15-16Z or PYFA-15-16ZB
Quantity	1
Operation Number / Labor Hours:	See chart below

Model	Spec	Operation No.	Labor Hours
Mazda3	2.0L	XXT2BARX	1.3 Hrs.
	2.5L (A/T)	XXT2BBRX	
	2.5L (M/T)	XXT2BCRX	1.2 Hrs.
CX-3	2.0L	XXT2BARX	1.2 Hrs.
CX-30	2.0L	XXT2BARX	1.2 Hrs.
	2.5L without cylinder deactivation	XXT2BDRX	
	2.5L with cylinder deactivation	XXT2BERX	1.3 Hrs.
Mazda6	2.5L	XXT2BFRX	1.3 Hrs.
CX-5	2.0L (M/T)	XXT2BGRX	1.2 Hrs.
	2.0L (A/T)	XXT2BHRX	1.3 Hrs.
	2.5L	XXT2BFRX	

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