

# Technical Service Bulletin

Mazda North American Operations  
Irvine, CA 92618-2922



<b>Subject:</b>  CHECK ENGINE LIGHT ON WITH DTC P0126:00	<b>Bulletin No.:</b> 01-005/23
	<b>Last Issued :</b> 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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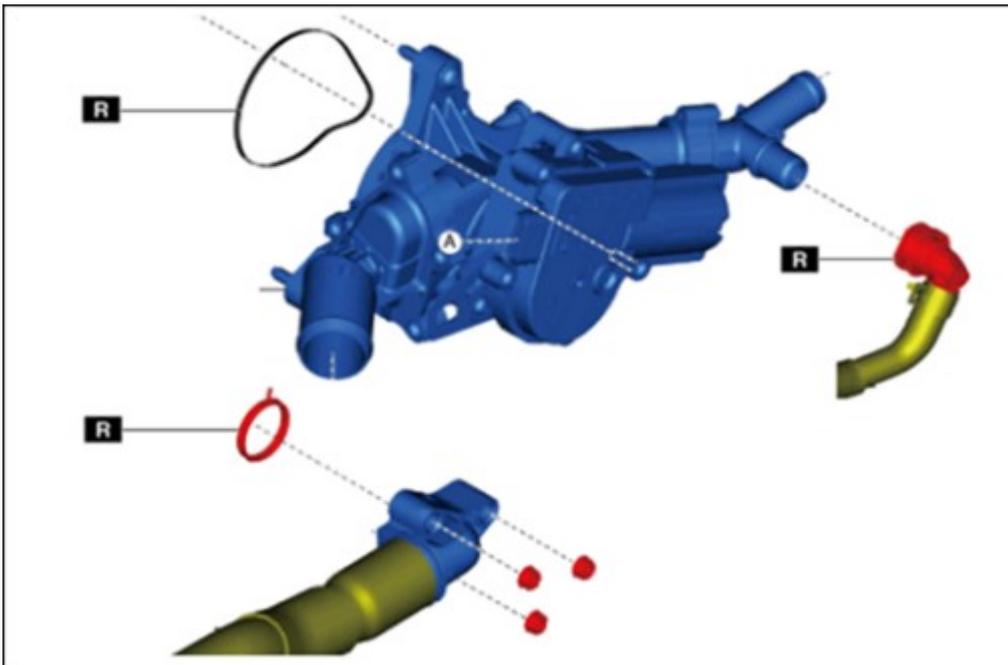
**PARTS INFORMATION**

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

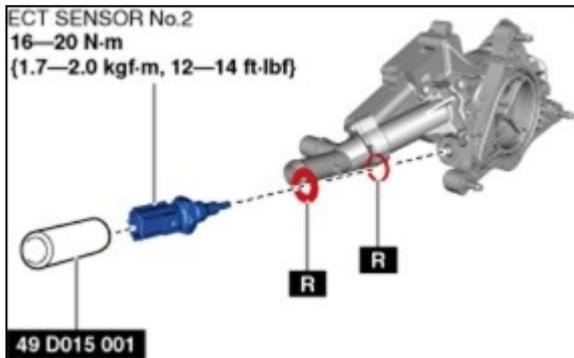
## Replacement Part Locations

- 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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