

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

**Subject:**

CHECK ENGINE LIGHT ON WITH DTC P20F8

Bulletin No.: 01-003/26

Last Issued : 01/30/2026

BULLETIN NOTES

APPLICABLE MODEL(S)/VINS

2024-2025 CX-30 (Mexico built) vehicles with VINs lower than 3MV DM**** ** 870015 (Produced before Sept. 5, 2025)
2024-2025 CX-5 vehicles with VINs lower than JM3 KF**** ** 756981 (Produced before Sept. 5, 2025)
2024-2025 CX-50 vehicles with VINs lower than 7MM VA**** ** 391831 (Produced before Sept. 5, 2025)
2024-2025 Mazda3 (Japan built) vehicles with VINs lower than JM1 BP**** ** 797298 (Produced before Sept. 5, 2025)
2023-2025 Mazda3 (Mexico built) vehicles with VINs lower than 3MZ BP**** ** 479955 (Produced before Aug. 18, 2025)

DESCRIPTION

Some vehicles may exhibit a check engine light ON with DTC P20F8:00 stored.

- P20F8:00 - Swirl control circuit range/performance problem.

The DTC is caused by overheating of the Swirl Control Valve (SCV) motor which leads to duty limitation, causing poor opening□angle response and resulting in stuck judgment.

To eliminate this concern, the PCM control software has been modified.

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

REPAIR PROCEDURE

1. Verify the customer concern.
2. Reprogram the PCM with the Mazda Modular Diagnostic System (M-MDS), using Mazda Diagnostic and Repair Software (MDARS). Refer to MDARS ECU Reprogramming Procedure.

NOTE: Be sure to submit Diagnostic Information (ODR) data as it is a required item and will be checked during warranty claim submission. Instructions can be found under M-MDS -> MDARS (Uploading Diagnostic Information (ODR) Data).

3. Clear any other DTCs.
4. Verify the repair by starting the engine (READY ON) and confirming there is no CHECK ENGINE light ON or abnormal warning lights present.

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CALIBRATION

ECU	Model	File Name (Old)	File Name (New)	Actual time to reprogram
PCM	MAZDA3	PXPJ-188K2-G	PXPJ-188K2-H	3 min.
		PXPH-188K2-G	PXPH-188K2-H	
		PXRX-188K2-G	PXRX-188K2-H	
		PXRW-188K2-G	PXRW-188K2-H	
		PW29-188K2-D	PW29-188K2-E	
		PW30-188K2-E	PW30-188K2-F	
		PW53-188K2-C	PW53-188K2-D	
		PW84-188K2-E	PW84-188K2-F	
		PW88-188K2-E	PW88-188K2-F	
		PW4N-188K2-B	PW4N-188K2-C	
		PW4P-188K2-B	PW4P-188K2-C	
		PW4R-188K2-A	PW4R-188K2-B	
		PW4T-188K2-B	PW4T-188K2-C	
		PW4V-188K2-B	PW4V-188K2-C	
	CX-30	PW4S-188K2-B	PW4S-188K2-C	
		PW72-188K2-E	PW72-188K2-F	
		PW4S-188K2-B	PW4S-188K2-C	
	CX-50	PWR9-188K2-F	PWR9-188K2-G	
	CX-5	PW67-188K2-E	PW67-188K2-F	
		PW66-188K2-E	PW66-188K2-F	

NOTE: This Service Information is only applicable for vehicles using the above calibration files.

WARRANTY INFORMATION**NOTE:**

This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.

This repair will be covered under Federal Emission Warranty.

Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	6X
Damage Code	9W

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Causal Part No.	5555-18-881
Quantity	0
Operation No. and Labor Hours	XXX59XFX / 0.3 Hrs.

After the reprogramming, be sure to keep a copy of the screen of the ECU FILENAME on M-MDS along with the repair order and warranty application sheet.

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