

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

**Subject:**

UPDATED SOFTWARE RELEASE FOR SLIGHT SURGE DURING
DECELERATION IN EV MODE

Bulletin No.: 05-003/24

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BULLETIN NOTES

APPLICABLE MODEL(S)/VINS

2024 CX-90 PHEV with VINS lower than JM1KK*****157841 (produced before January 25, 2024)

DESCRIPTION

Some customers may feel a slight surge when driving at around 60 mph (100 km/h) in EV mode and decelerating with the accelerator pedal not fully released. If the accelerator pedal is fully released, the concern does not occur. This may be caused by improper torque control occurring for some shift down occasions. To eliminate this concern, the control software of the TCM 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 **TCM** 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 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 ODR Data).**
 - When TCM has been selected, MDARS will reprogram PCM, ECM and TCM together as one software package, but some vehicles need TCM reprogramming only as PCM and ECM already have modified software at the factory or by reprogramming for other concerns.
 - Reprogramming is not necessary if current calibration file name in the ECU FILENAME screen is the same as shown in Calibration Files Information or with later suffix.
 - After the reprogramming, pending DTC P2610:00 [PCM] may be stored without the CHECK ENGINE light ON. Since this DTC may turn to a current DTC depending on operations after the reprogramming, clear DTC after all repair work is done.
3. Clear any other DTCs.

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4. Verify the repair by starting the engine and confirming there is no CHECK ENGINE light ON or abnormal warning lights present.

NOTE :

- DO NOT start the engine with connected 12V battery charger because the power supply from the DCDC converter and the power supply from the 12V battery charger may interfere then warning light comes up and DTCs are stored.
- If any DTCs remain after deleting DTC, diagnose the DTCs according to the appropriate Troubleshooting section in MGSS.

5. Perform the initial learning according to the instructions in MGSS (INITIAL LEARNING OF AT).

- If MDARS screen shows "Failed", perform the learning again.

6. Perform the learning cycle for shift ranges.

- a. Power ON (READY ON) and select the SPORT mode.
- b. While idling and pressing the brake pedal, perform the following steps:
 - 1) Shift into D position.
 - 2) Shift from D into R position and wait for 10 seconds. (DO NOT stop at N position).
 - 3) Shift from R into D position and wait for 10 seconds. (DO NOT stop at N position).
 - 4) Repeat steps 2) and 3) 4 more times (5 cycles total).

NOTE: After TCM reprogramming, the customer may notice a shift feeling change temporarily. The hydraulic pressure setting for clutch engagement is not optimized and actual hydraulic pressure may not be stable, depending on situations. During driving, the learning process optimizes the hydraulic pressure setting for clutch engagement to stabilize the actual hydraulic pressure. Therefore, in the beginning of driving, light shift shocks and shift feeling change may be felt temporarily.

CALIBRATION

ECU	File Name (Old)	File Name (New)	Note
PCM	MS05-186K2-R	MS05-186K2-S	Without 1500W AC power outlet
	MS06-186K2-R	MS06-186K2-S	With 1500W AC power outlet
ECM	PXRC-188K2-P	PXRC-188K2-R	
TCM	PXPN-21PS1-G	PXPN-21PS1-H	

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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 Federal Emission Warranty (long term) or TZEV Emission Warranty.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	64
Damage Code	9W
Part Number Main Cause	5555-21-100
Quantity	0
Operation Number / Labor Hours:	XXWLKXFX / 0.7 Hrs. (TCM reprogramming and AT learning)

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