

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922



| | |
|--|---------------------------------|
| Subject: PERIODIC NOISE WHILE IN I-STOP OPERATION WITH TRANSMISSION IN NEUTRAL | Bulletin No.: 05-005/24 |
| | Last Issued : 08/22/2024 |

BULLETIN NOTES

APPLICABLE MODEL(S)/VINS

2024 CX-90 (H3T inline 6) with VINS lower than JM3KK*****161438 (produced before February 29, 2024)

DESCRIPTION

Some customers may complain about a periodic noise coming from underbody while the engine is stopped by i-stop function and the transmission is shifted into Neutral, such as at a stoplight. This may be caused by improper control logic of the automatic transmission. To eliminate this concern, 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. If not performed yet, perform any existing campaign programs including reprogramming of the **PCM**, then this concern may also be repaired. (Claim the labor hours to the campaign program.)
3. Reprogram the **PCM** and **TCM** with the Mazda Modular Diagnostic System (M-MDS), using the Mazda Diagnostic And Repair Software (MDARS). Refer to MDARS ECU Reprogramming Procedure, and then perform TCM Initial Learning, Powertrain Start-up Learning, and Shift Range Learning.

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).**
- When TCM has been selected, if necessary, then MDARS will reprogram PCM and TCM together, as one software package.
- 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.

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

NOTE: If any DTCs should remain after deleting DTC, diagnose the DTCs according to the appropriate Troubleshooting section in MGSS.

Page 1 of 3

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical--including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

6. Perform TCM Initial Learning according to the instructions on MGSS (INITIAL LEARNING OF AT).

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

7. Perform the Learning Cycle for Starting.

- Start the engine.
- Wait for at least 5 seconds.
- Turn the ignition OFF
- Wait for at least 5 seconds.
- Repeat steps (a) through (d) 2 more times (3 cycles total).

8. Perform the Learning Cycle for Shift Ranges.

- Start the engine.
- While idling, depress the brake pedal and perform the following steps:
 - Move the shift lever in "D".
 - Move the shift lever from "D" to "R" and wait 10 seconds.*
 - Move the shift lever from "R" to "D" and wait 10 seconds.*
 * DO NOT stop in N range while moving the shift lever.
- Repeat steps (1) through (3) 4 more times (5 cycles total).

NOTE: Explain to the customer that they may notice a shift feeling change temporarily (after TCM reprogramming) because 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, and is considered normal.

CALIBRATION

| Model | Power-train | Fuel | ECU | File Name (Old) | File Name (New) | Actual time to reprogram |
|-------|--------------------|---------|-----|------------------|-----------------|--------------------------|
| CX-90 | 3.3L (inline 6) | Regular | PCM | H301-188K2-P | H301-188K2-R | 7 min. |
| | | | TCM | H327-21PS1-J | H327-21PS1-K | |
| | | Premium | PCM | H302-188K2-P | H302-188K2-R | |
| | | | TCM | H328-21PS1-J | H328-21PS1-K | |

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical--including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

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

| | |
|---------------------------------|---------------------|
| Warranty Type | A |
| Symptom Code | 82 |
| Damage Code | 9W |
| Part Number Main Cause | 5555-21-100 |
| Quantity | 0 |
| Operation Number / Labor Hours: | XXWRDXFX / 0.8 Hrs. |

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.