



Technical Service Bulletin

GROUP RECALL	NUMBER 24-01-055H
DATE JULY 2024	MODEL(S) SANTA FE (MX5A)

SUBJECT: TCU SOFTWARE UPDATE & INSPECTION FOR TRANSMISSION NOISE OR DAMAGE (RECALL 263)

★ IMPORTANT

Vehicle repairs related to safety recalls are critically important and must be performed properly in accordance with TSB procedures. Review this bulletin in its entirety prior to beginning any repair work.

As required by federal law, dealers must not deliver new vehicles for sale or for lease to customers until all open recalls have been performed. Dealers must also perform all open recalls on used vehicles, demo, and rental vehicles prior to placing them into customer use and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the “Vehicle Information” screen via WebDCS to identify open campaigns.

Description: The Dual Clutch Transmission (DCT) in certain Santa Fe (MX5A) vehicles could become damaged during normal operation due to Transmission Control Unit (TCU) software logic that could engage the parking pawl without the driver selecting the Park position. This condition could cause noise within the transmission and/or allow for unintended movement while the vehicle is powered down or in Park. Unintended vehicle movement could lead to a vehicle rollaway, increasing the risk of a crash and injury to occupants or vulnerable bystanders. This bulletin provides instruction to inspect the transmission, replace if necessary, and update the TCU software.

Please note that the transmission replacement portion is under development.

Applicable Vehicles (Certain):

- 2024MY Santa Fe (MX5A) equipped with MX5A-8DCT produced from 04/23/2024 – 07/02/2024

GDS Information: Automatic Transaxle

System	Event #	Description
TCU	1129	MX5a 2.5T 8DCT HP EOP SENSORLESS LOGIC UPDATE WHEN MOTOR MIL ILLUMINATE

(*or use a later available event as listed in the GDS TCU System Update screen if one is available.)

SUBJECT:TCU SOFTWARE UPDATE & INSPECTION FOR TRANSMISSION
NOISE OR DAMAGE (RECALL 263)**Warranty Information:**

Model	Op. Code	Operation	Op. Time	Casual Part	Nature Code	Cause Code
Santa Fe (MX5A) 2.5T 8DCT	41DA09R0	Inspection and TCU Update	0.6 M/H	954A1-2N820	W17	ZZ3

NOTE 1: Submit claim on Claim Entry Screen as “Campaign” type.

NOTE 2: If a part is found in need of replacement while performing this recall and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

NOTE 3: Op times include VIN, Mileage, and photo capture of the “ECU update complete” screen and DCT case housing as outlined in the Digital Documentation Policy.

NOTE 4: If vehicle fails the inspection, please hold the vehicle, and put customer in an SRC.

ROM ID Information: Event # 1129

Model	Engine	System	ECU Part Number	ROM ID	
				Old	New
Santa Fe (MX5A)	Theta 2.5T	TCU	954A1-2N820	VMX5AXT25XXXNS2	VMX5AXT25XXXNS3
			954A1-2N830	VMX5AXT25XXTXNS2	VMX5AXT25XXTXNS3

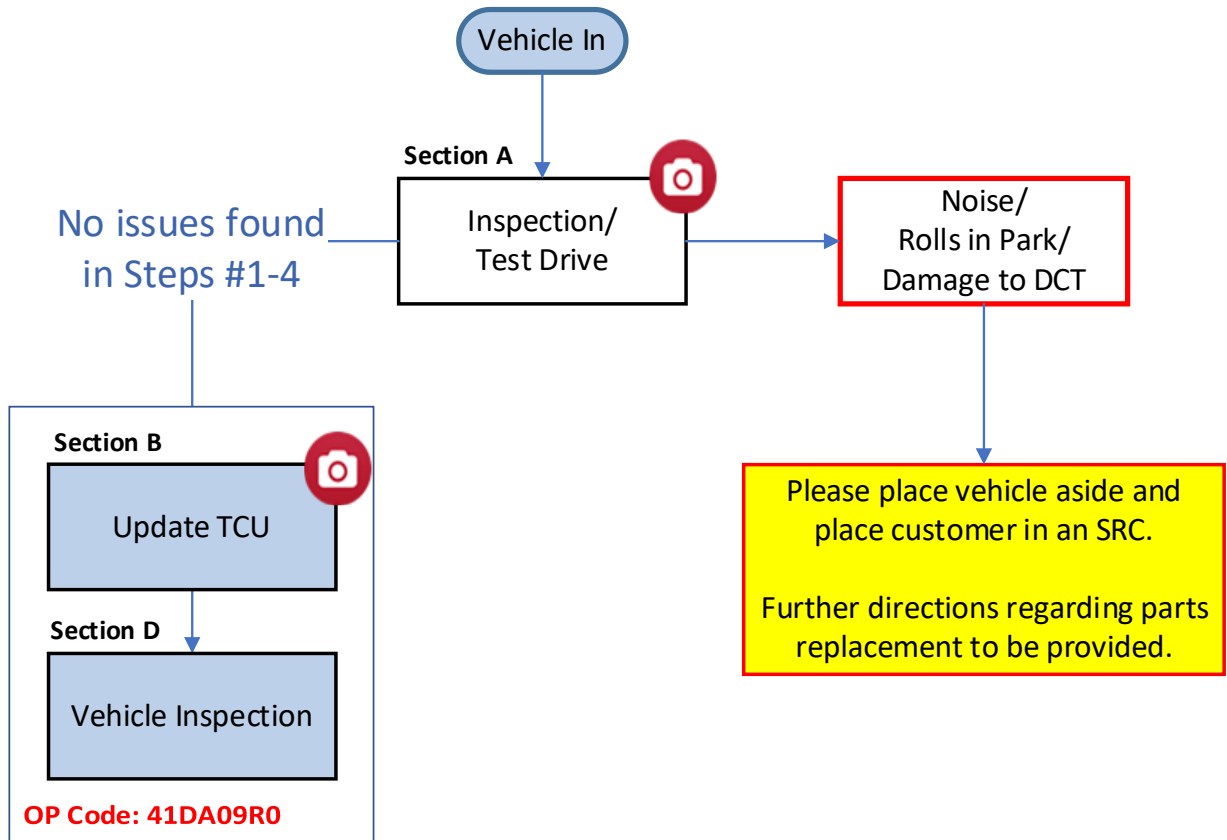
Service Procedure:

STUI



This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

1. Refer to flowchart for overall procedure.



A. Inspection and Test Drive

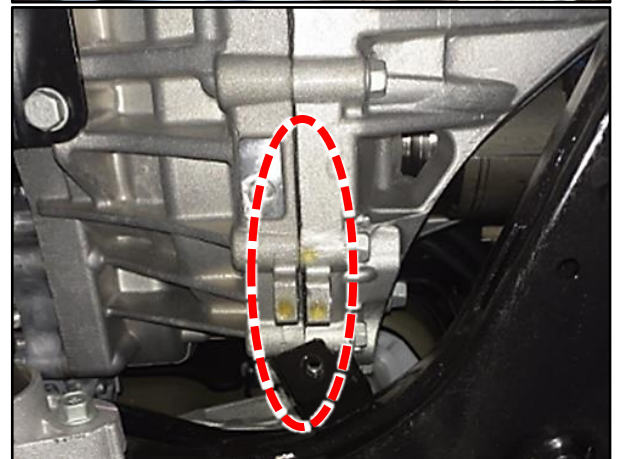
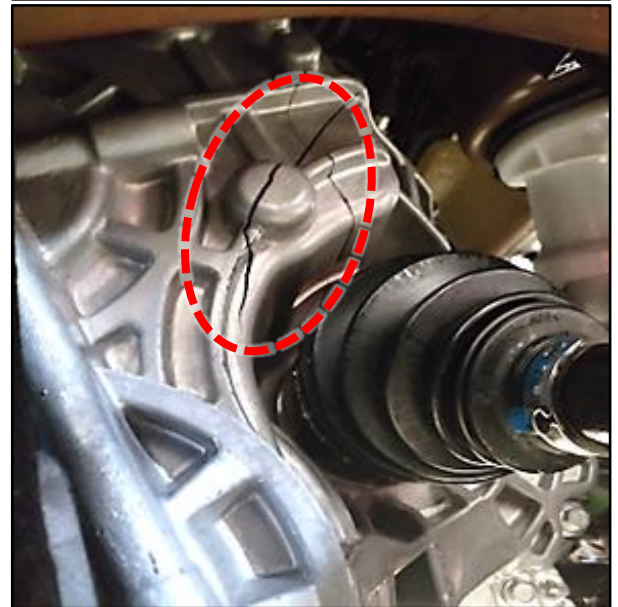
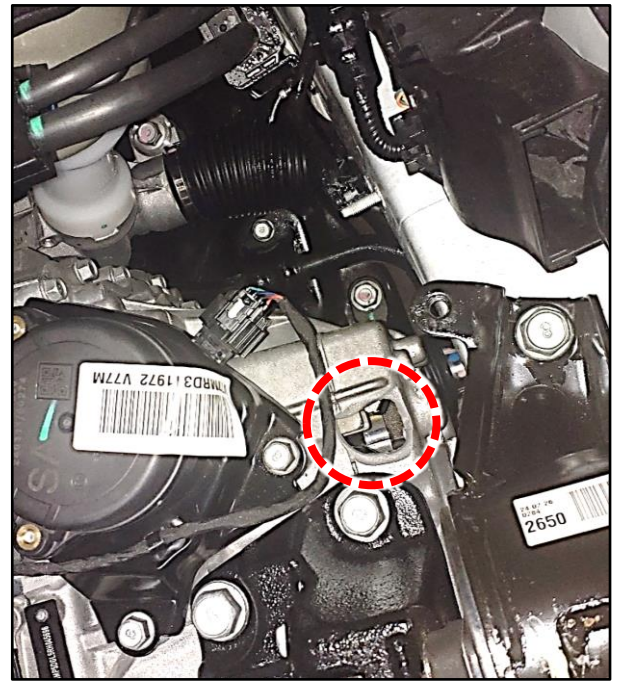
1. **Static Test:** Perform 3 times.
 - A. Turn **ON** the ignition.
 - B. Shift the transmission while the brake pedal is depressed to:
N↔D, N↔R, P↔D, P↔R, D↔R
 - Vehicle should not experience any abnormal shift shock while stationary.
 - If vehicle does experience any abnormal shift shock, proceed to **Step 5**.
2. **Creep Test:** Perform 3 times.
 - A. Turn **ON** the ignition.
 - B. Shift the transmission from **Park** to **Drive**. Allow vehicle to creep forward.
 - C. Shift the transmission from **Park** to **Reverse**. Allow vehicle to creep backwards.
 - Vehicle should start moving within 1-2 seconds, without hesitation or juddering.
 - If vehicle does experience hesitation or juddering, proceed to **Step 5**.

 **Information**

Do **NOT** step on the accelerator.

3. Shift the transmission to **Park** with the parking brake **OFF** and ensure parking pawl engages:
 - If the vehicle **rolls** while the transmission is in **Park**:
 - Go to **Step 6**.
 - If vehicle does **NOT** roll then proceed to **Step 4**.

- 4. Inspect for damage, cracks, holes, or leaks on the transmission:
 - A. Remove the airbox, battery, and battery tray to inspect the **top of the transmission.**
 - B. Remove the engine room under cover to inspect the **bottom of the transmission.**



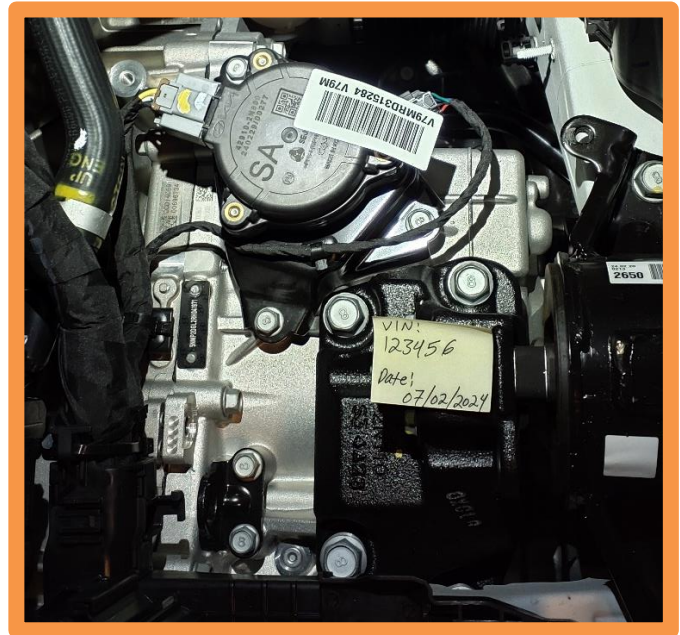
5.

STUI



Using STUI, take a photo (NOT a video) of the current transmission housing, showing either damage or no damage, with the last 6 digits of the VIN and the date of repair on a piece of paper. Show both the top and bottom of transmission housing.

Upload the photos to STUI.



6. If there were no issues found during steps 1-4, proceed with **Section B** for the TCU update.

If there were **any issues** (rolling, noise, hesitation/juddering, or DCT damage) found during steps 1-4, please hold the vehicle and place the customer in an SRC. Parts remedy portion is in development.

B. TCU Update Procedure

NOTICE

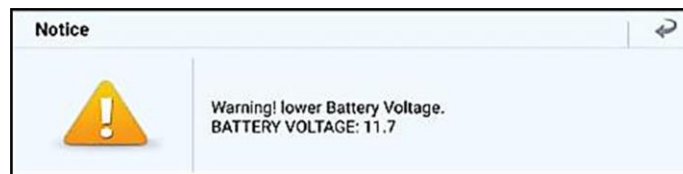
You must initially perform the GDS ECU update in Auto Mode.

- If the ECU update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

NOTICE

GDS Vehicle Battery Low Voltage Warning:

If voltage is below 12 Volts per the GDS warning, then select **Back** and attach a battery charger to ensure an adequate battery charge for reliable update results. Turn ignition back **ON**, and then retry the TCU update again.



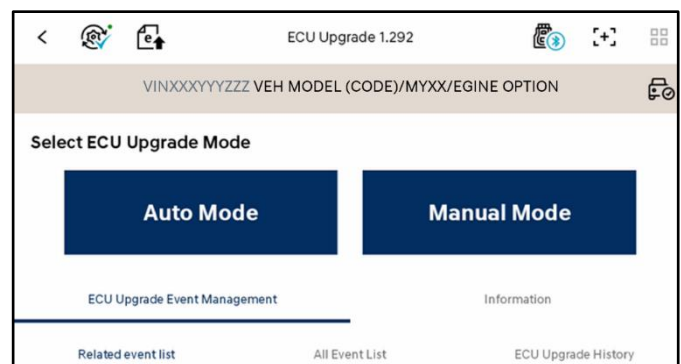
- Verify the vehicle battery has reasonable charge.
- Turn off all lamps (do **NOT** leave head lamp switch in auto mode) and all accessories.
- Perform update with the ignition switch in the ON position.
- Do **NOT** disconnect any cables connected to the vehicle or scan tool during update.
- Do **NOT** start the engine during update.
- Do **NOT** turn off the ignition switch during update.

1. Perform the TCU update in **Auto Mode**.

Use the **ID Check** to verify the ROM ID before updating the software.

**Information**

Refer to **TSB 15-GI-001**, “**ECU Update Procedure**”, for additional information.



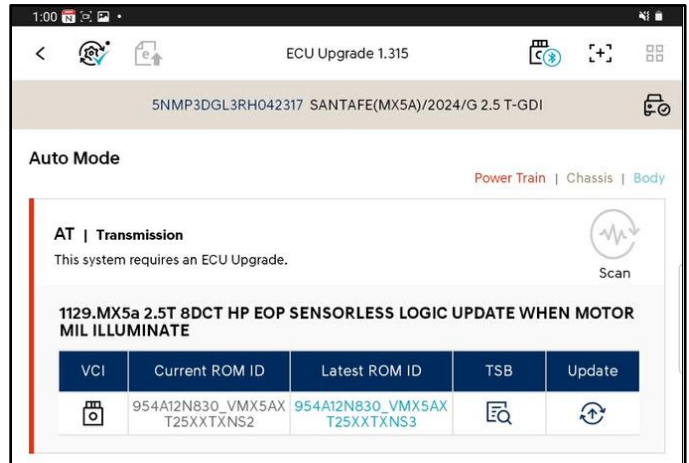
- Select the **AT | Transmission** system to scan the vehicle's current ROM ID.

NOTICE

Check the current ROM ID version and compare it to the ROM ID Information table before attempting to perform the software update.

NOTICE

If the upgrade fails, please remove the power connector or the battery (-) connector from the indoor fuse box for at least 5 seconds and reassemble it to retry the upgrade.

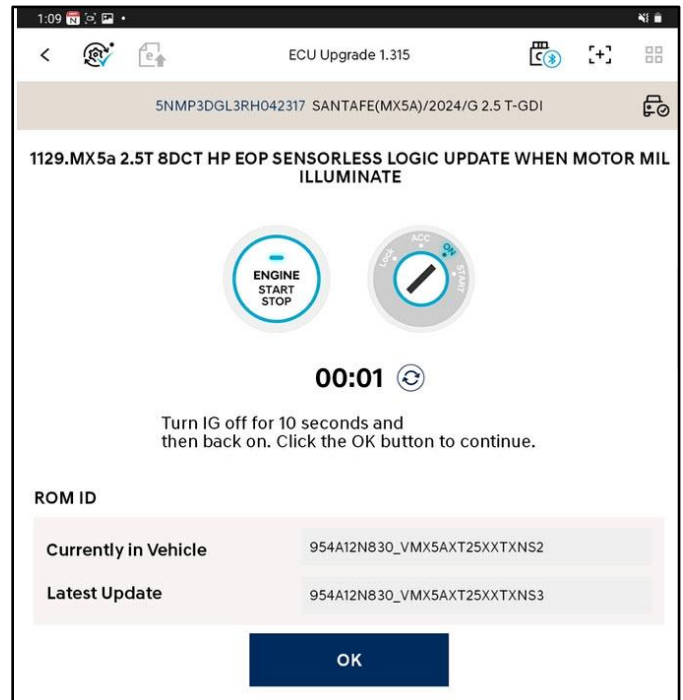


- After the ECU update process shows 100% complete, follow the prompts on the screen to cycle the ignition **OFF** for at least **10 seconds** to reset the control unit (certain models may take up to 30 seconds).




Information

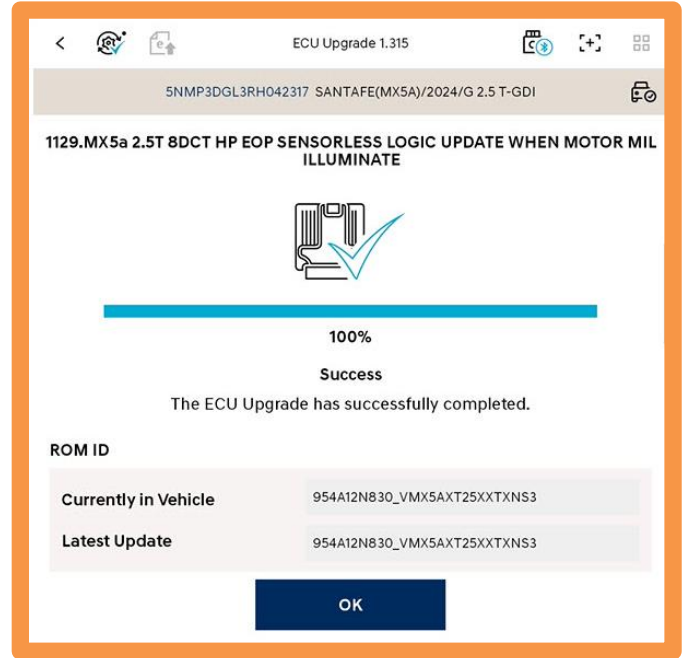
Use the **Refresh** button to reset the timer.



4.

STUI 

Take a screenshot of the ECU Update Complete screen using your tablet and upload to STUI.



- 5. Perform an **All Systems Fault Code** search and erase DTC history that had incidentally occurred from the ECU update.
- 6. Start the engine OR place in **Ready** mode to confirm proper operation of the vehicle.

Manual Mode Passwords: Event # 1129

TCM Menu	Password
MX5a 2.5T 8DCT TCU 954A1-2N820	9531
MX5a 2.5T 8DCT TCU 954A1-2N830	9532