

***** All Dealers: Please watch for updates to this procedure. *****

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Vehicle Inspection Procedure and Preparation for Repair

1. Verify that the vehicle is within the following ranges and there is an Announced or OPEN 7124J campaign in eMDCS:

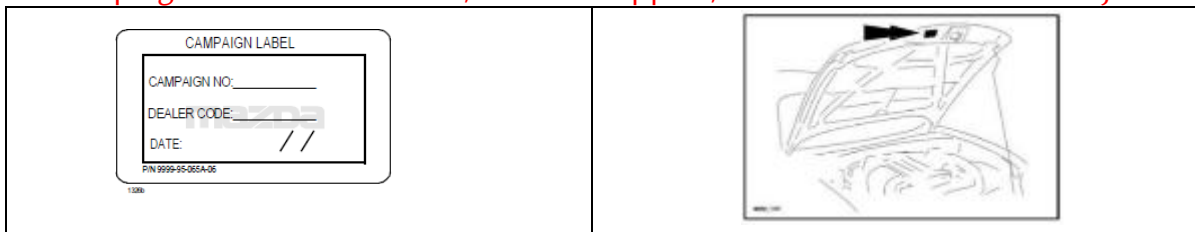
SUBJECT VEHICLES

Model	Subject VIN range	Subject production date range
2024-2025 CX-90	JM3KK**** R1 100044 – 189844 JM3KK**** S1 189864 – 191539	From December 27, 2022 through July 1, 2024
2025 CX-70	JM3KJ**** S1 100013 – 114632	From December 5, 2023 through August 7, 2024

*Only the vehicles in this range and with a “Announced” or “Open” status in eMDCS are affected. If the vehicle is in the range above and 7124J is either in OPEN or Announced status in eMDCS, proceed to Step 2. If the vehicle does not have an OPEN or Announced 7124J campaign, return the vehicle to the customer or inventory.

2. Perform an eMDCS Warranty Vehicle Inquiry and inspect the vehicle for a Campaign Label with **7124J** attached to the vehicle’s hood, driver door or firewall.

NOTE: Always be sure to verify the campaign number as the vehicle may have multiple campaign labels on the hood, radiator support, and firewall or driver door jamb.



eMDCS - Warranty Vehicle Inquiry Results

If eMDCS displays:	Campaign Label is:	Action to perform:
If no repair date is displayed on the line with CAMPAIGN 7124J, the campaign has not been completed on this vehicle	Present	Fill out Dealer Recall Help on OneMazda contact or the Mazda Warranty Department at warrantydept@mazdausa.com to review vehicle history.
	Not present	Proceed to “REPAIR PROCEDURE”.
If repair date is displayed for CAMPAIGN 7124J, is “CLOSED”	Present	Return vehicle to inventory or customer.
	Not present	Complete a label and apply to vehicle’s hood with repair date and dealer code from eMDCS Warranty Inquiry.
CAMPAIGN 7124J is not displayed	See Action	The vehicle is not affected by the Recall

**SAFETY AND EMISSIONS RECALL 7124J
REPAIR PROCEDURE**

TECHNICIAN LEVEL REQUIRED: CERTIFIED OR ABOVE (DOES NOT HAVE TO BE HYBRID CERTIFIED).

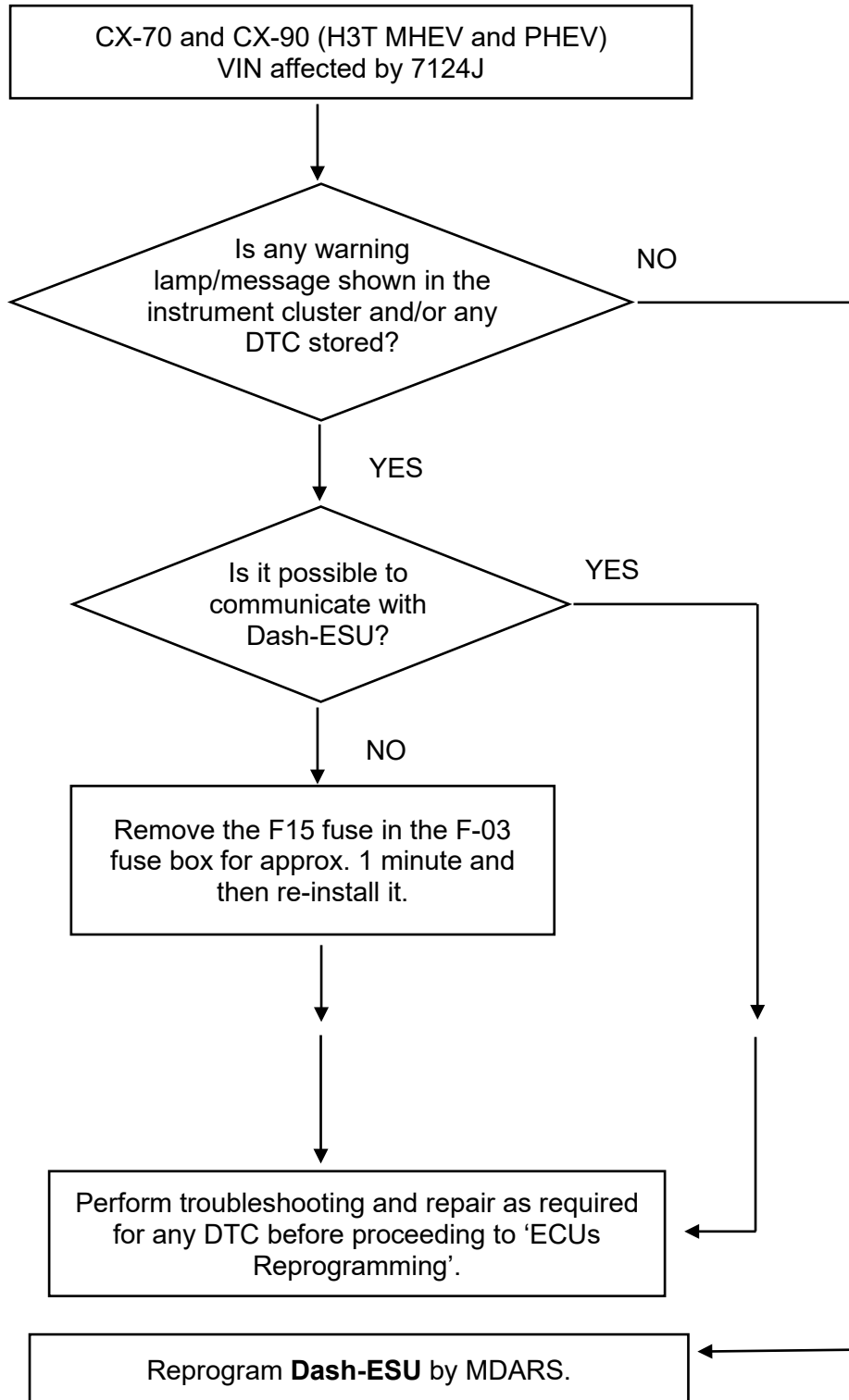
Note: Technician repairing needs to be Certified or above and does not need to be Senior or Master as long as they have had the required training for ODR – Collection of Diagnostic Information

Section A: Flow Chart

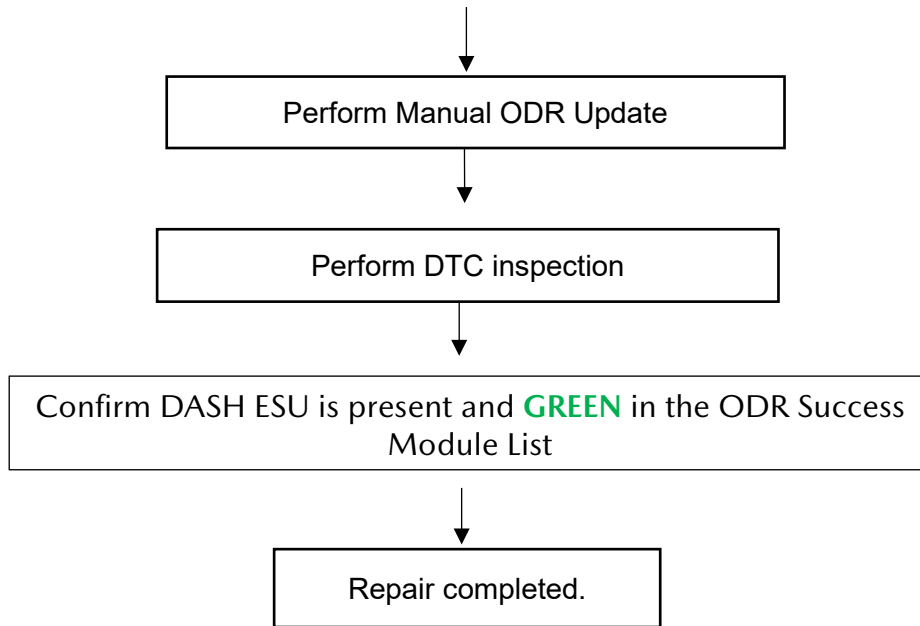


NOTE: You must clear any DTC's (diagnose and repair) before performing any of these campaigns. The recall repairs will NOT fix/clear a DTC issue. Once repaired, then start the repair process for campaigns.

NOTE: This Flow Chart needs to be followed strictly



CONTINUED - GO TO NEXT PAGE



****NOTE: All vehicles require the upload of ODR (Manual) after the technician has completed all software updates. If ODR is not uploaded successfully, or if one or more software updates are missed, the applicable campaign(s) will remain open, the warranty claim will not accept, and your dealer will have to contact the customer to bring back the car to correct the concern. You must do a ODR Update (Manual) even if the module software is up to date.**

-----END OF SECTION A-----

Section B : Repair Procedure Recall 7124J

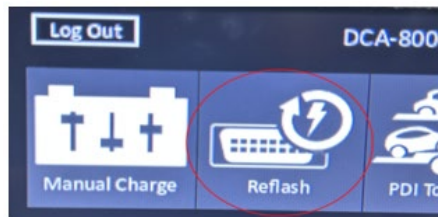
Note: this procedure can be skipped in following cases

- 7124J is not displayed under the campaign section in Warranty Vehicle Inquiry.

Service caution during reprogramming for ECU(s)

During reprogramming, connect battery charger to the vehicle to stabilize voltage fluctuation. If missing, it may cause damage to ECUs due to decreasing voltage.

7th generation vehicle will control to turn on headlight forcibly during reprogramming due to change CAN communication. **Please use the "Reflash" setting in the charger, which will keep the voltage stable. The setting voltage must be between 12 -13V.**



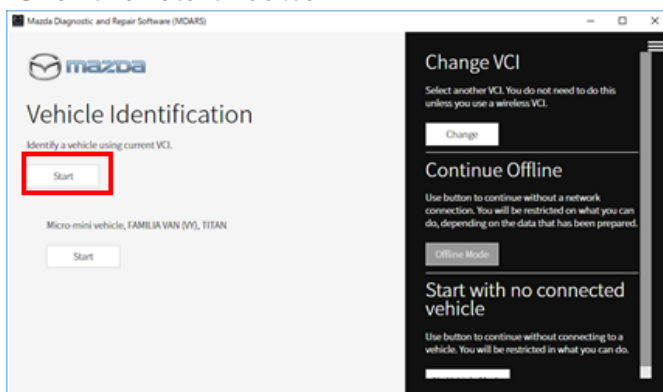
PHEV VEHICLE NOTE: Make sure that HV charging cable is not connected to HV battery charging port.

Vehicle Identification

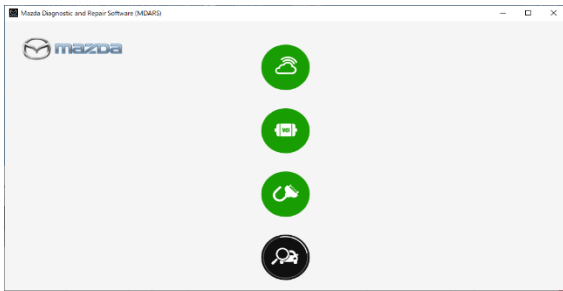
Connect MDARS with the DLC cable and VCM- II to the vehicle, then set the ignition to the ON position.

CAUTION: Connect the DLC cable and the VCM- II to the vehicle with the ignition OFF. The CAN bus line might detect some noise and it might cause a diagnostic error when connecting the DLC cable with the ignition ON.

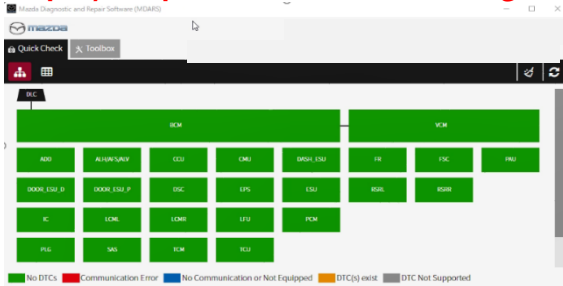
1. Click the "Start" button.



2. The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



3. Verify the DTC according to the directions on the quick check screen. **If any DTCs are displayed, perform troubleshooting according to the corresponding DTC inspection.**

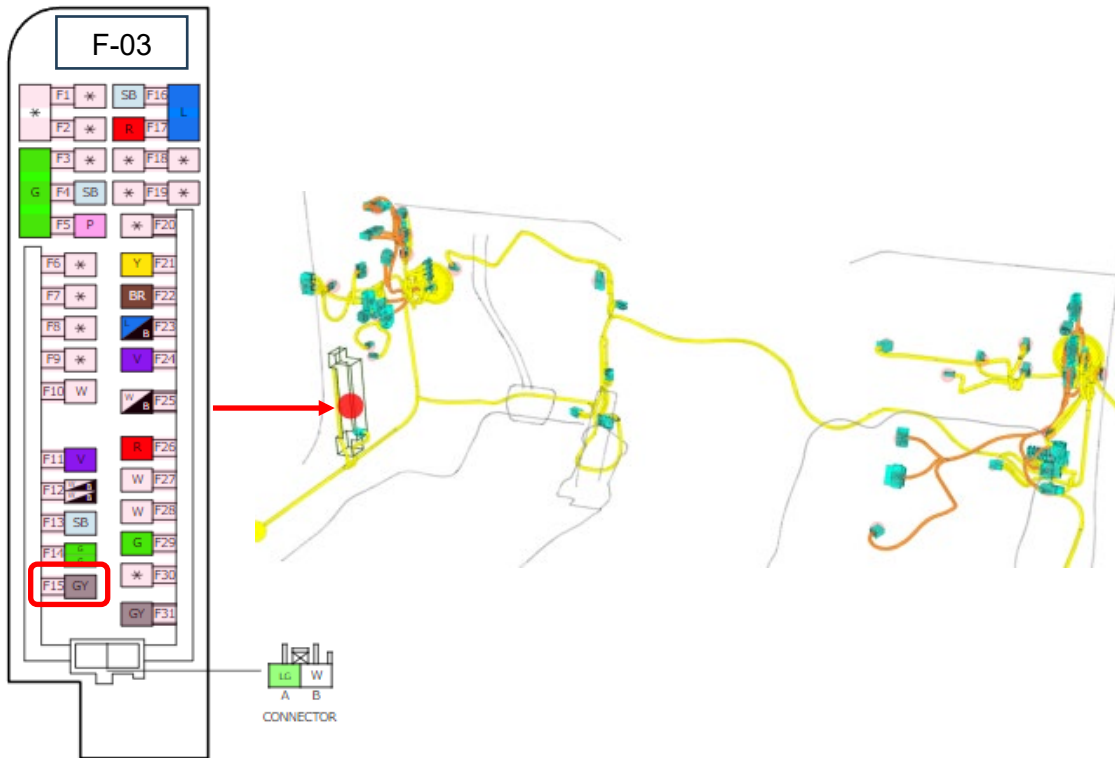


Verify	Result	Next step
Is any warning lamp/message shown in the instrument cluster and/or any DTC stored?	No	Go to step 4
	Yes	Go to next step a)

- a) Check the CAN communication status of Dash-ESU and verify if it is possible to communicate with Dash-ESU.

Verify	Result	Next step
Is it possible to communicate with Dash-ESU?	No	Go to next step b)
	Yes	Go to step e)

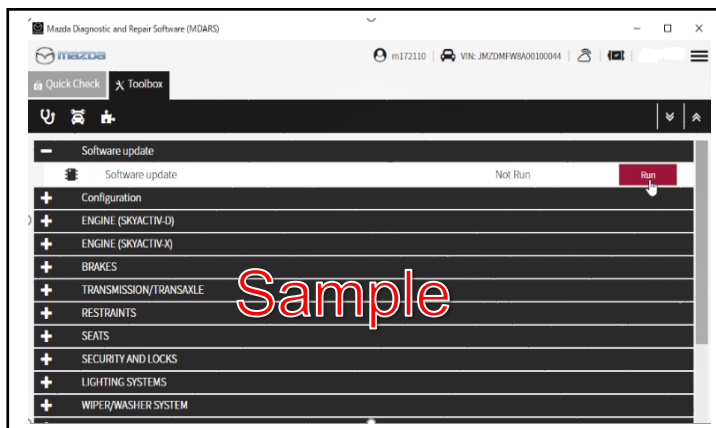
- b) Turn the ignition switch to the OFF position.
- c) Remove the F15 10A fuse in the F-03 Fusebox for approximately 1 minute.
- d) After that install the fuse in the original position. (F15 in the F-03 Fusebox).
*Fuse position: F-03 Fuse box Driver seat. (RHD's fuse position is the same)



e) Perform troubleshooting according to the corresponding DTC inspection. And repair as required before proceeding to next step.

4. Reprogram ECUs as below.

- At 'Software update' on 'Toolbox' tab, select 'Run'.



5. Select **Dash-ESU** 'ECU Reprogramming' screen. Start Reprogramming.

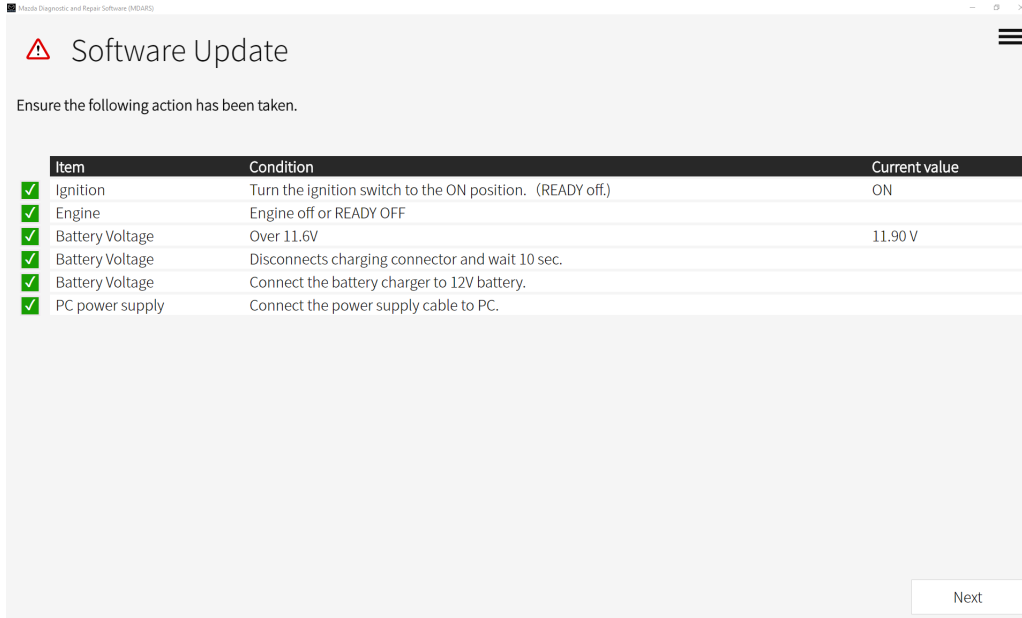
IMPORTANT NOTE:

- If current calibration file name in the ECU FILENAME screen is the same as shown in Calibration Files Information or with later suffix, reprogramming is not necessary.
- MDARS reads the current file name of the modules to be reprogrammed and then reprograms the required modules only. (MDARS does not reprogram modules that are not needed)

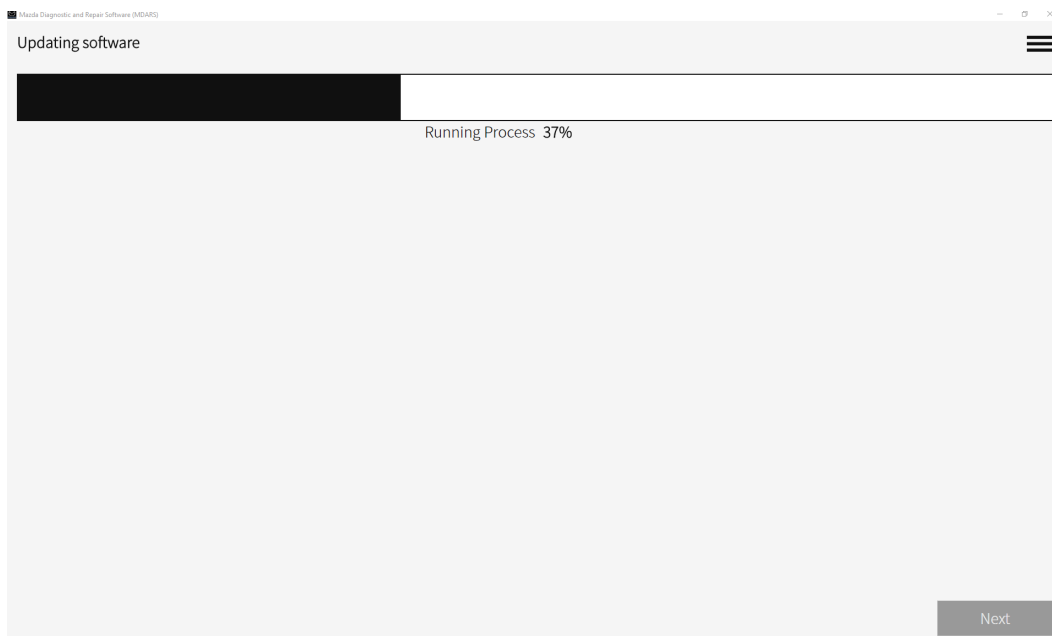
CAUTION:

- Please be careful about the behaviour of MDARS when reprogramming an ECU. Depending on the reprogramming ECU, IG-ON and IG-OFF may be repeated several times due to MDARS. **This operation is normal operation.**

(1) Follow instructions in the screen and click "Next".



(2) This is the screen while the software is being updated. The progress bar does not change for about 60 seconds.

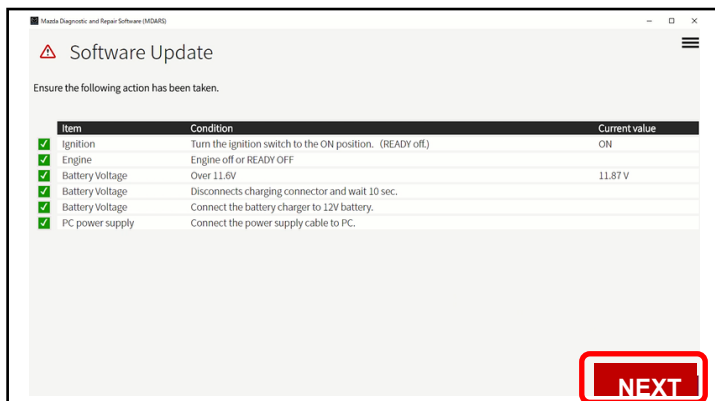


SAFETY AND EMISSIONS RECALL 7124J REPAIR PROCEDURE

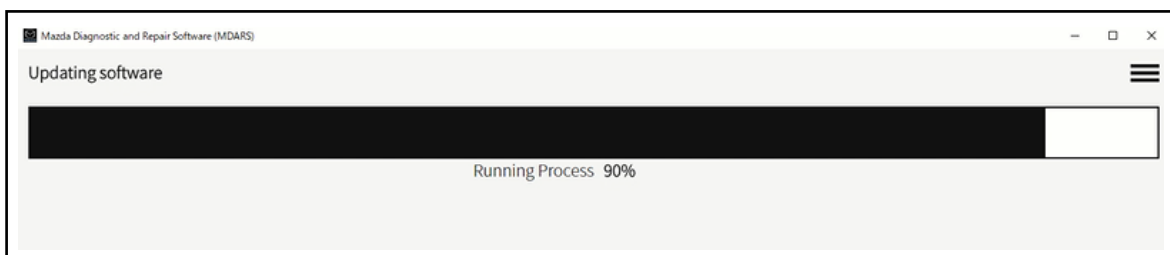
- (3) During reprogramming, "Turn Ignition Switch to the OFF Position" may display on the MDARS several times. Turn the ignition switch OFF, check the box, and select "Next".



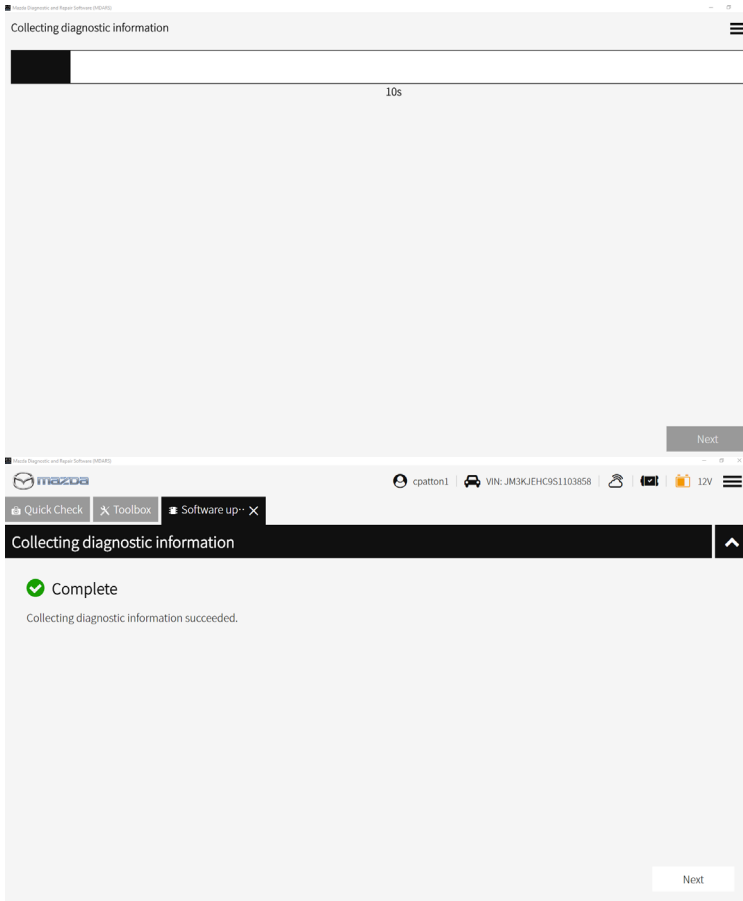
- (4) MDARS may return to screen shown in step (1) multiple times (this is normal operation.). Then each time turn the ignition switch to the ON position and then click 'next'.



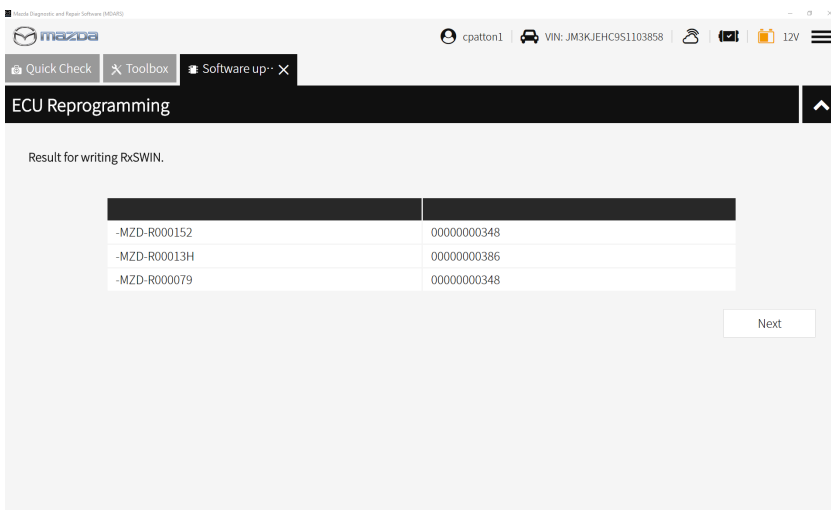
- (5) When the software is being updated and advances to 90% on the screen, it may stop advancing for about 60 seconds. Wait until reprogramming is complete.

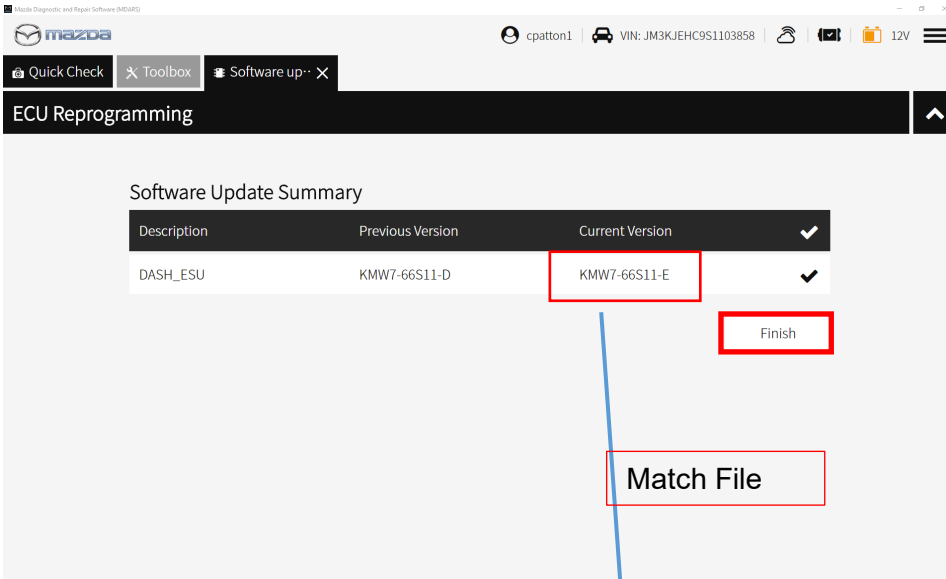


SAFETY AND EMISSIONS RECALL 7124J REPAIR PROCEDURE



6. After completion of software update, the previous and current software version are shown.
 - Check current version at "Calibration File information below".
 - Then, click on "Finish" to exit the ECU reprogramming.





Calibration file information

Note: If the calibration file is with the suffix in the table or later, unit is already modified.

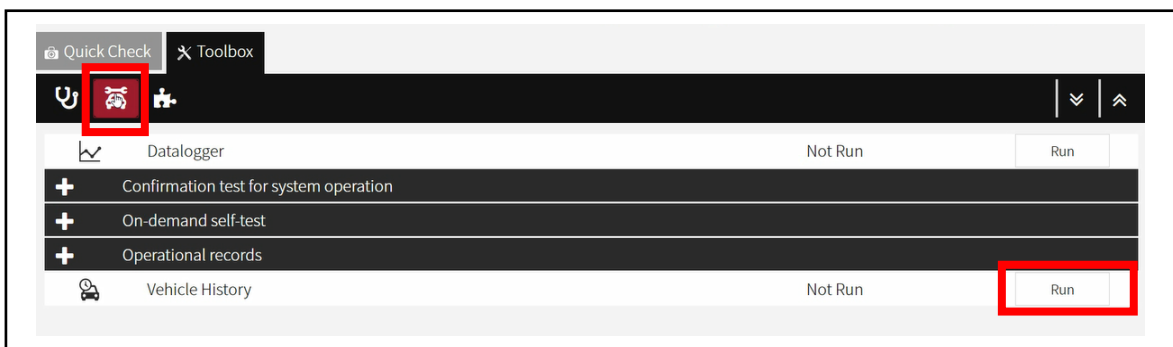
Model	Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Module to be reprogrammed automatically.
CX-70	Dash-ESU	KMV6-61590-	KMV6-66S11-G PHEV	3	-
			KMW7-66S11-E MHEV		

Model	Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Module to be reprogrammed automatically.
CX-90	Dash-ESU	KMV6-61590-	KMV6-66S11-G PHEV	3	-
			KMW7-66S11-E MHEV		

Check/Upload ODR Data

Check ODR collection result after reprogramming all required modules with vehicle verification.

- Open the vehicle history on toolbox tab.



- Click the 'Collect Diagnostic Information' and the status has "SUCCESS" on green.

Note: Verify the "Collect Diagnostic Information" after all required modules are updated. Not necessary to confirm the 'Collect Diagnostic Information' after required module reprogram every time.

SAFETY AND EMISSIONS RECALL 7124J REPAIR PROCEDURE

Note: Only the latest "Collect Diagnostic Information" is the valid one and that needs to show "SUCCESS"

The screenshot shows the Mazda Diagnostic and Repair Software (MDARS) interface. At the top, there's a navigation bar with 'Quick Check', 'Toolbox', and 'Vehicle Hist...'. Below that, the date 'November 4, 2024' is displayed. A search bar shows 'Nov 4, 2024 12:03 UTC -0800'. The main area displays a log of diagnostic sessions:

Start	Time	Status	Duration
Start	11/4/24 12:03 PM	STATUS: SUCCESS	52 seconds
Vehicle Identification	11/4/24 12:04 PM		
Quick Check > Network View	11/4/24 12:04 PM		
Quick Check > DTC List	11/4/24 12:04 PM		
Collect Diagnostic Information (Automatic)	11/4/24 12:04 PM		
Collect Diagnostic Information (ECU SW U...	11/4/24 12:15 PM		
Software update	11/4/24 12:17 PM		
Collect Diagnostic Information (Manual)	11/4/24 12:19 PM		

Confirm with Quick Check DASH ESU is highlighted in Green after you have already updated the module.

The screenshot shows the Mazda Diagnostic and Repair Software (MDARS) interface displaying a grid of Diagnostic Trouble Codes (DTCs). The grid is organized into columns and rows. The 'DASH_ESU' code is highlighted in green, indicating that it has no DTCs. A blue arrow points to the 'DASH_ESU' code. The legend at the bottom indicates the status of each code:

- Green: No DTCs
- Red: Communication Error
- Blue: No Communication or Not Equipped
- Orange: DTC(s) exist
- Grey: DTC Not Supported

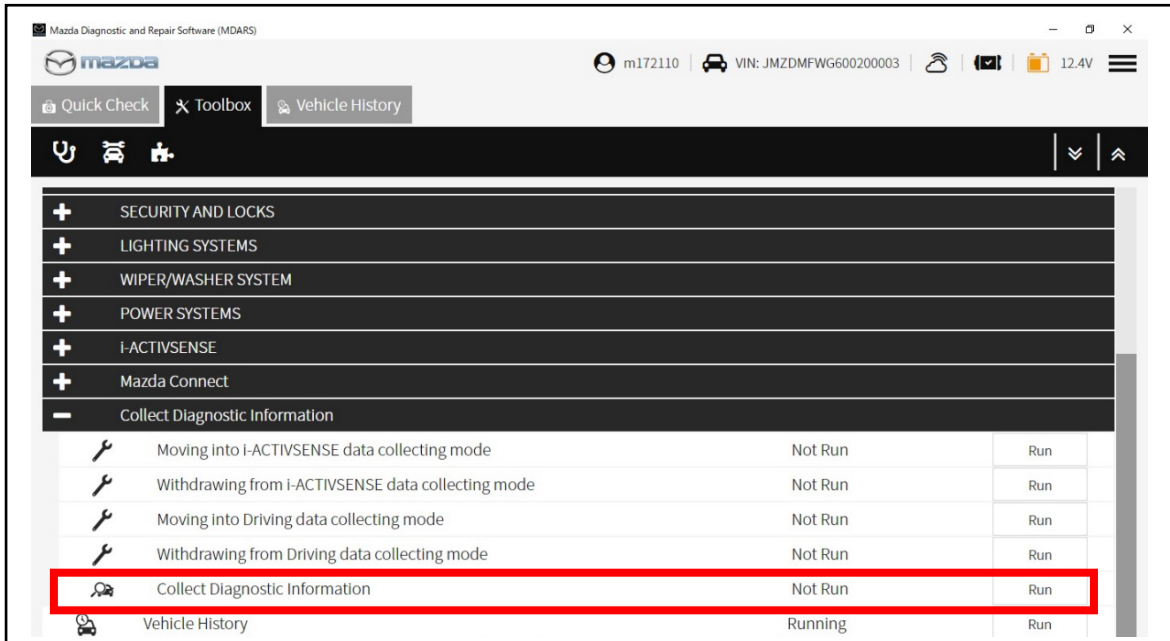
※If the status is 'FAILURE', the ODR (latest vehicle information) has not been submitted to the server.

Status: FAILURE

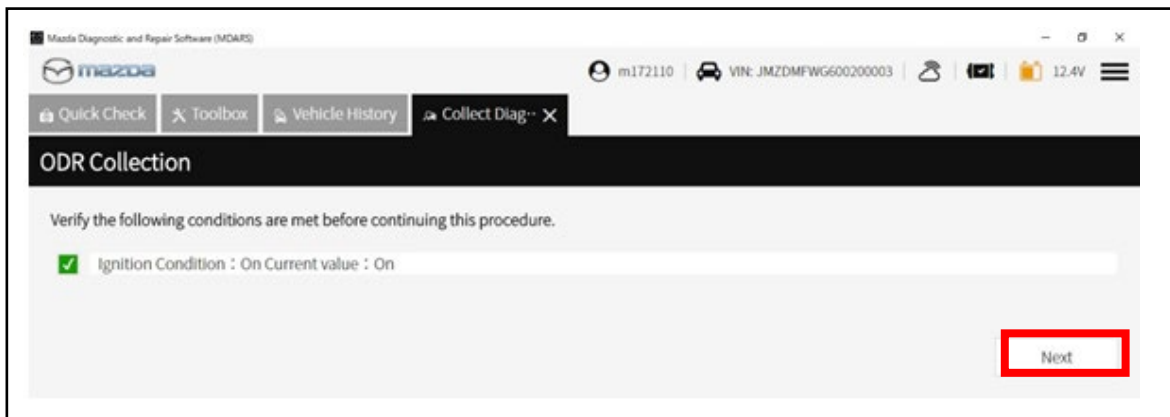
Duration: 1 seconds

9. Perform following steps when status, as shown above, shows "FAILURE".

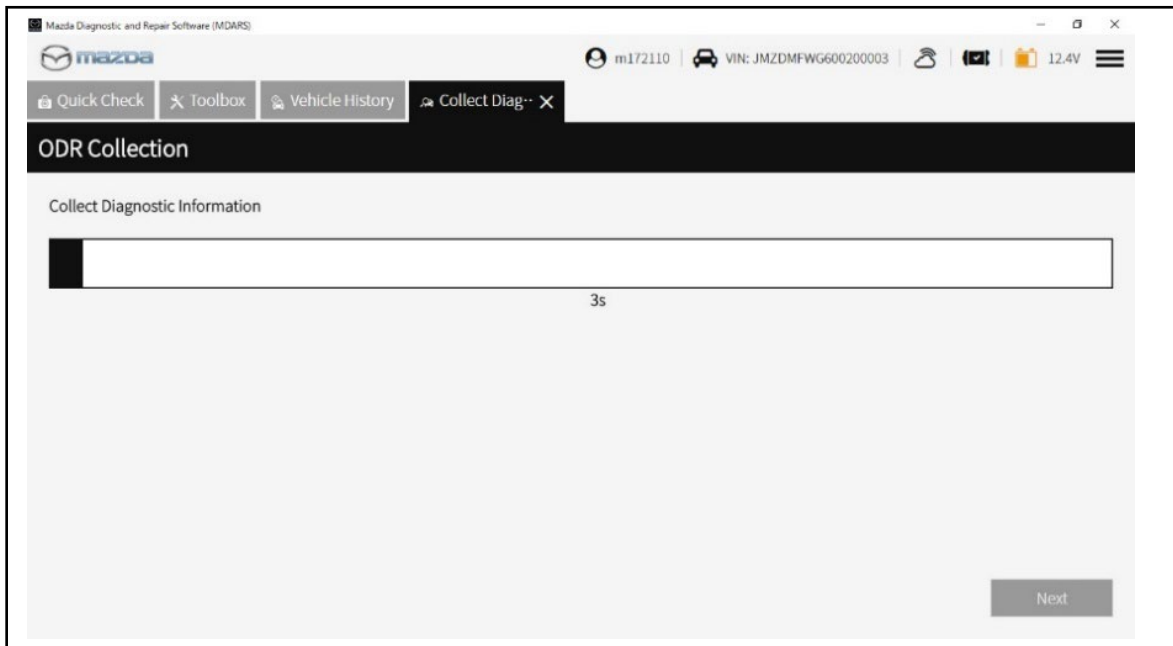
(1) At the toolbox tab, select "Collect Diagnostic information" then click 'Run'.



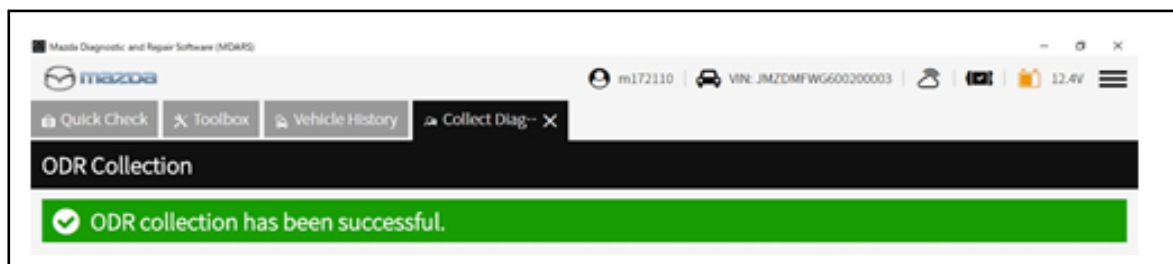
(2) Click 'Next'.



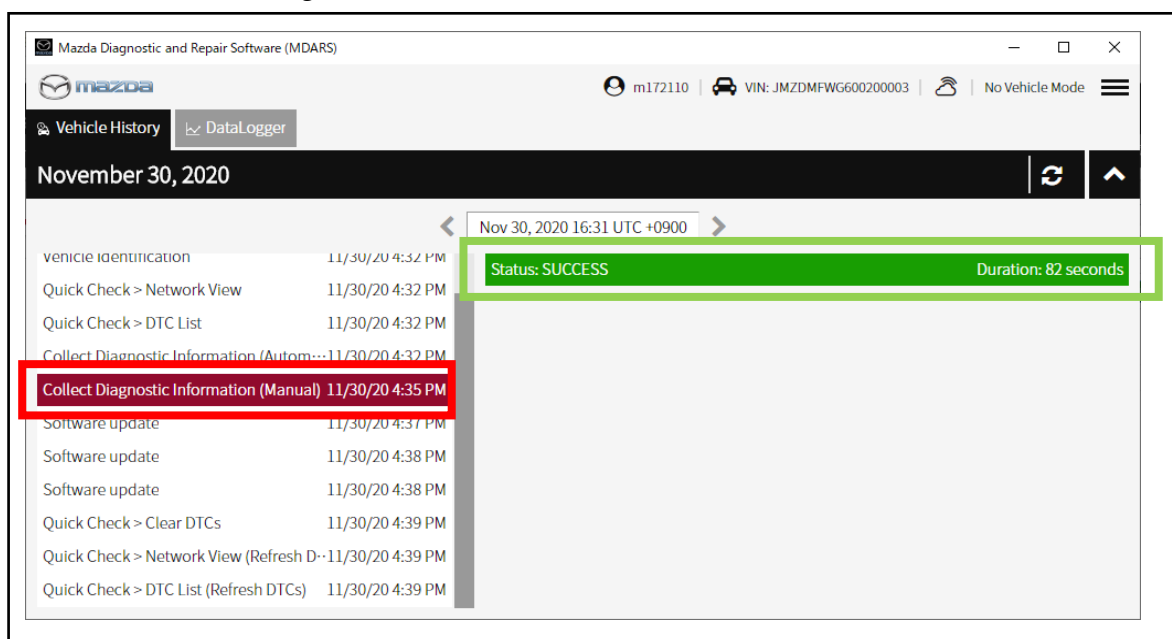
(3) It takes around 60 seconds.



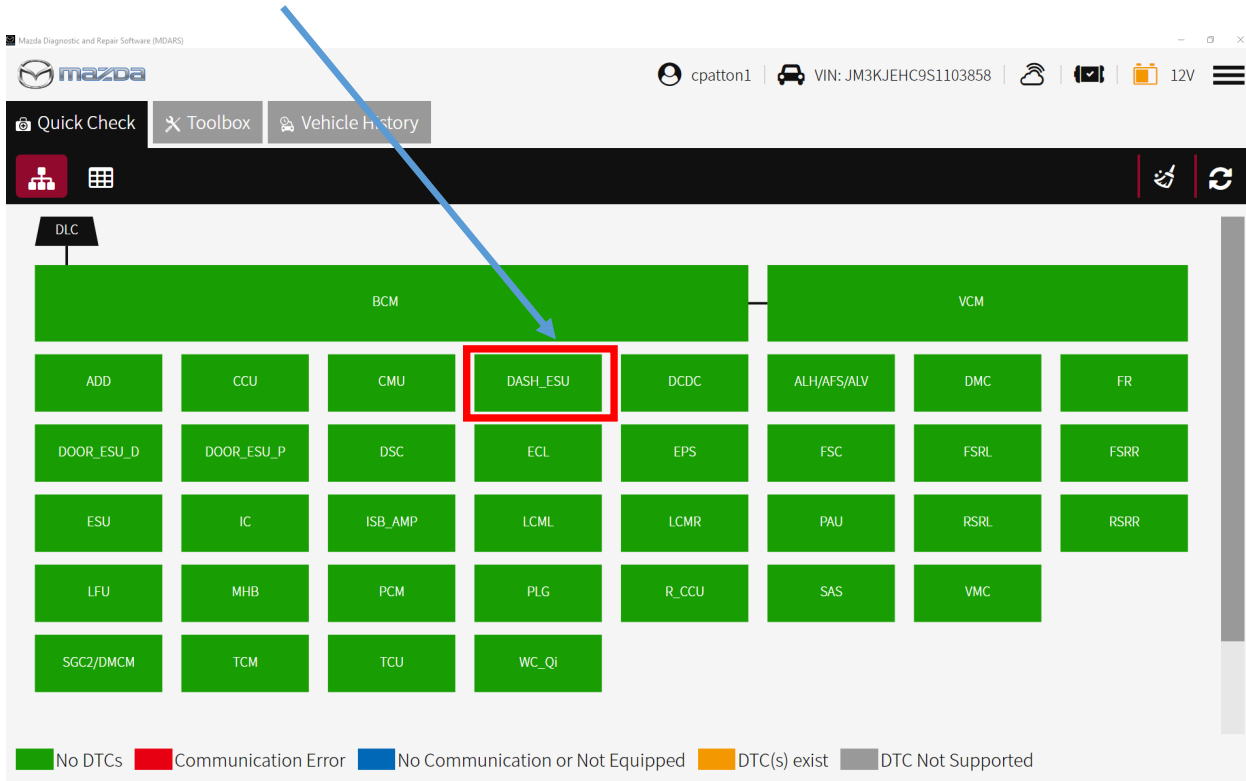
(4) MDARS will collect ODR and send to the server.



(5) Go back to step 14 and 15 to confirm the 'Collect Diagnostic Information (Manual)' status shows "SUCCESS" on green.



Confirm with Quick Check DASH ESU is highlighted in Green after you have already updated the module.



10. Disconnect battery charger before going to next step.

DTC inspection

11. Check and erase DTC by using MDARS.
12. Confirm all DTCs were erased.

Note:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate troubleshooting section of the Workshop Manual.
- Note:
- After the reprogram, pending DTC P2610:00 [PCM] may be stored without MIL illumination. Since this DTC may turn to a current DTC depending on operations after the reprogramming, clear this DTC after all repair work done.
 - Perform the following engine start and stop procedure to clear DTC P2610:00:
 - 1) Start the engine (5 seconds).
 - 2) Stop the engine.
 - 3) Clear the DTC recorded in the memory by MDARS.
 - 4) Perform the KOER self-test by MDARS.
13. Disconnect the MDARS from the DLC-2.

Explanation to customers

- Any ECU reprogramming resets the BCM's average fuel economy (remaining mileage).
- Therefore, the remaining mileage may change if customer drive after reprogramming.
- After learning the customer's average fuel consumption calculated over several drives, the remaining mileage will be displayed correctly.

[Go to ODR \(Manual\) Update](#)

[Recovery Mode Procedure – Click here if programming fails.](#) Then return here and move to the next step in the procedure after recovery.

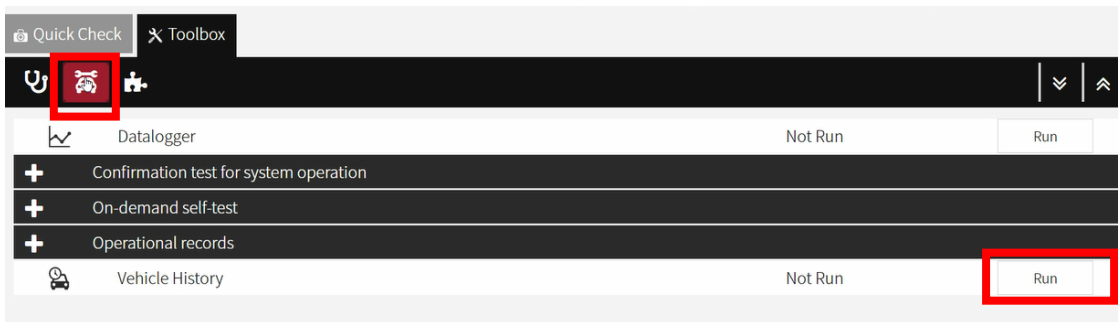
NOTE: If the calibration file up-to-date (suffix is equal to or greater than shown in the table), the module is already modified but ODR (Manual) update is still required.

ODR (Manual) Update

WARNING! FAILURE TO PERFORM AN ODR (MANUAL) UPDATE WILL RESULT IN CLAIM DENIAL, CAMPAIGN REMAINING IN OPEN STATUS AND VEHICLE HAVING TO COME BACK TO REDO THE ODR DATA PUSH

Upload ODR Data - Check for ODR collection result after reprogramming all required modules with vehicle verification. Then proceed to perform an ODR (Manual) Update

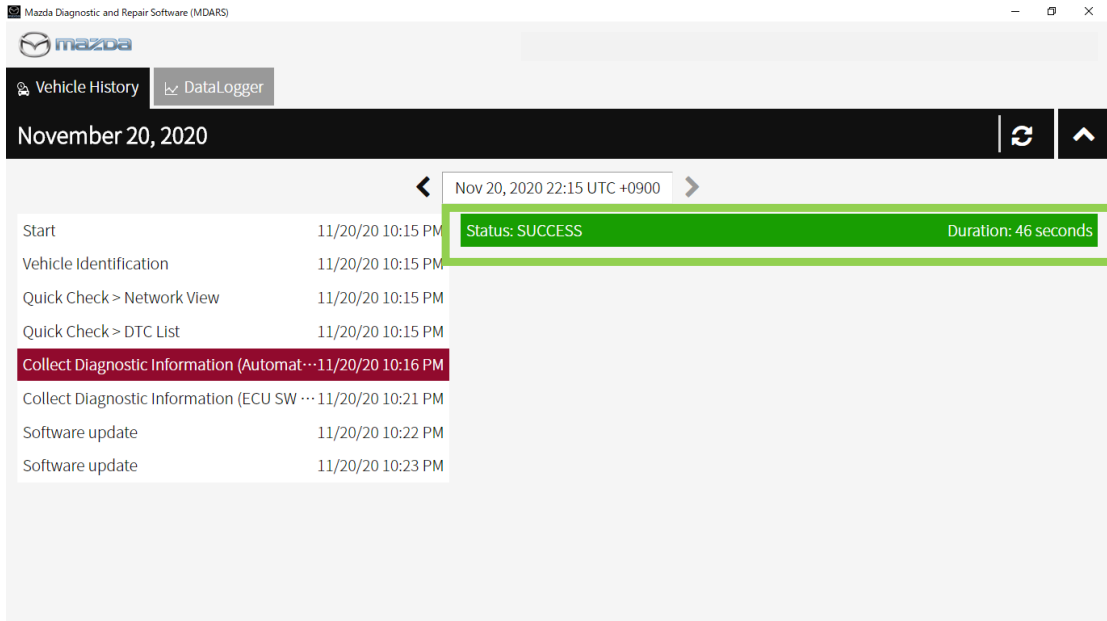
- A. Open the vehicle history on toolbox tab.



- B. Click the 'Collect Diagnostic Information' and make sure the status is 'SUCCESS' in green. **NOTE: Verify by selecting 'Collect Diagnostic Information' after all required modules are updated.** It is not necessary to confirm the 'Collect Diagnostic Information' after required module reprogram every time.

Only the latest "Collect Diagnostic Information" is the considered valid and that needs to show "SUCCESS"

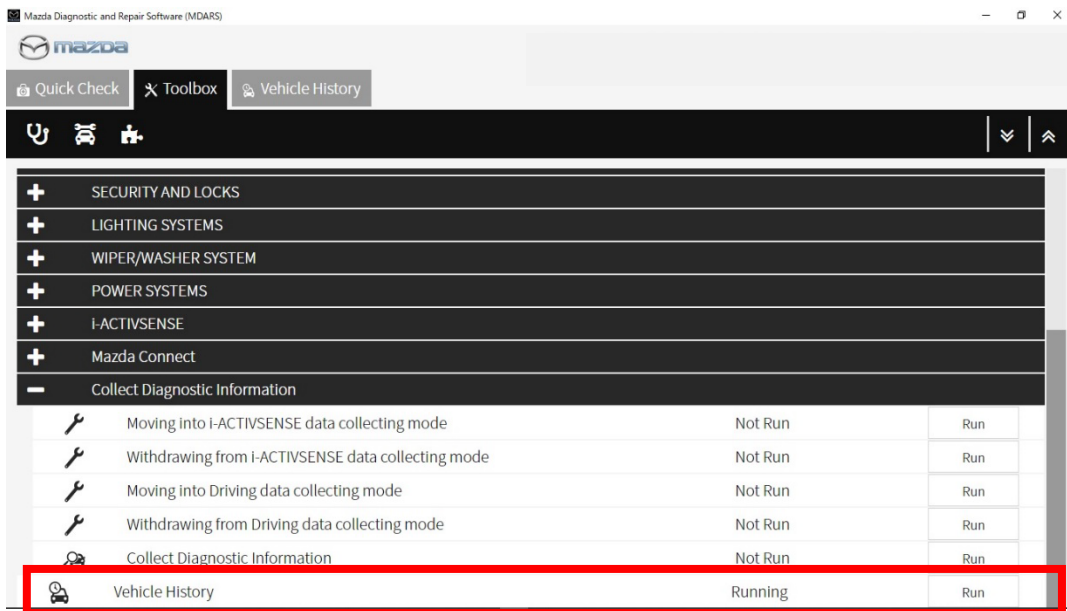
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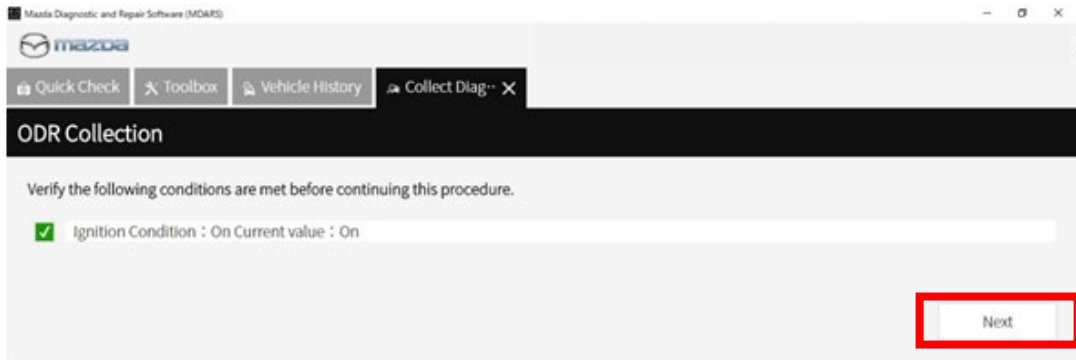
CAUTION: If the status is 'FAILURE', the ODR (latest vehicle information) has not been submitted to the server, continue with steps below.

Status: FAILURE Duration: 1 seconds

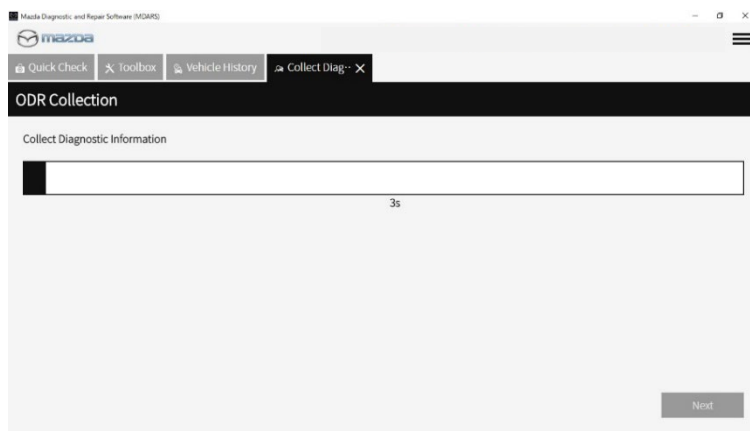
C. 'Collect Diagnostic information' then click 'Run' at the tool box tab.



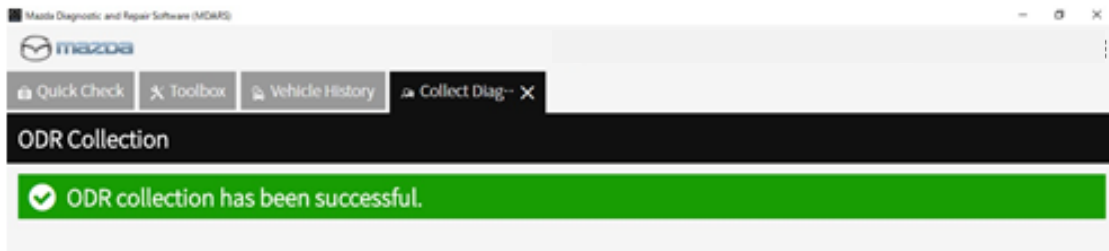
D. Click 'Next'



E. This may take around 60 seconds.

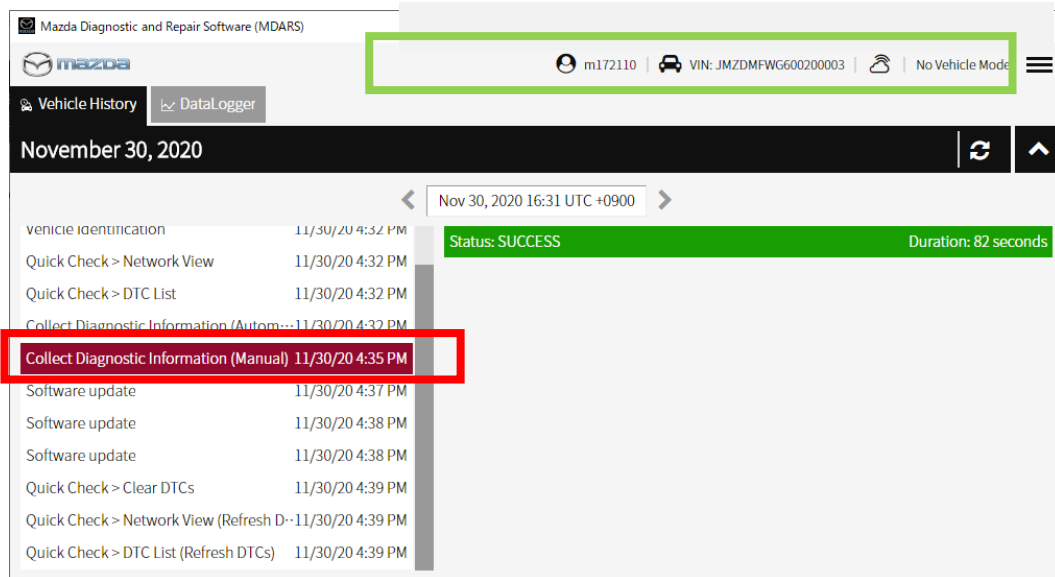


F. MDARS has collected ODR data and confirmation has been sent to the server.



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REPAIR PROCEDURE**

- G. Check to make sure “Collect Diagnostic Information (Manual)” appears and Status shows ‘SUCCESS’ in green. ***If this step is not completed, your warranty claim will not be approved and the customer will need to return for a re-repair.***



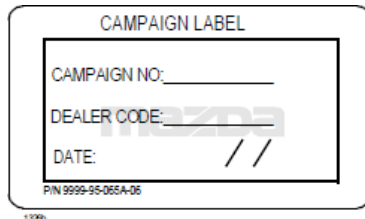
14. Disconnect the MDARS from the DLC-2.

-----END OF SECTION B-----

GO TO SECTION C. CAMPAIGN LABEL INSTALLATION

C. Campaign Label Installation

1. Fill out a Black "Campaign Label" (9999-95-055A-06) with Campaign #: "7124J", your dealer code, and the repair date. **It is OK to bundle multiple campaigns on one label as long as each campaign is legible as Mazda vehicles may have more than 1 campaign.** Use more than one label if necessary.



CAMPAIGN LABEL

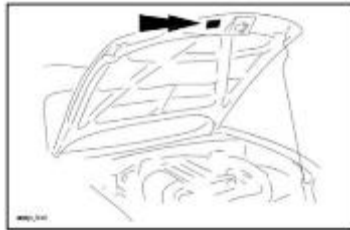
CAMPAIGN NO: _____

DEALER CODE: _____

DATE: // //

PIN 9999-95-055A-06

2. Affix it to the hood as shown. If you cannot place the label here, the radiator support, firewall or driver door jamb are acceptable locations:



END OF REPAIR PROCEDURE