

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

**\*\*\*UPDATED July 2, 2024 – Add Module recovery Mode to procedure\*\*\***

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## A. VEHICLE INSPECTION PROCEDURE AND PREPARATION FOR REPAIR

1. Verify that the vehicle is within the following ranges and there is a Not Launched or OPEN 6223J and/or 6323J recall in eMDCS:

### SUBJECT VEHICLES RECALL 6223J

Model	Subject VIN range	Subject production date range
2024 CX-90 All powertrain	JM3 KK ****R1 100044 – 132978	From December 27, 2022 through September 5, 2023
2024 MAZDA3	JM1 BP****R1 650006 - 657565	From May 25, 2023 through August 23, 2023

### SUBJECT VEHICLES RECALL 6323J

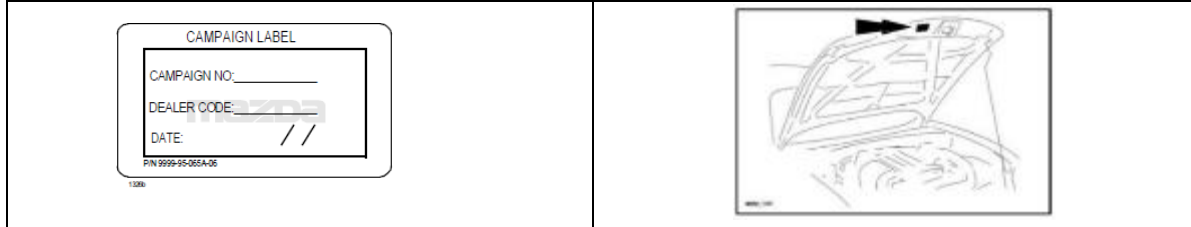
Model	Subject VIN range	Subject production date range
2024 CX-90 PHEV	JM3 KK ****R1 1000454 – 118462	From December 28, 2022 through June 20, 2023

\*Only the vehicles in this range and with a “Not Launched” or “Open” status in eMDCS are affected. If the vehicle is in the range above and 6223J and/or 6323J is OPEN or Not Launched in eMDCS, proceed to Step 2. If the vehicle does not have an OPEN or Not Launched 6223J and/or 6323J campaign, return the vehicle to the customer or inventory.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

2. Perform an eMDCS Warranty Vehicle Inquiry and inspect the vehicle for a Campaign Label with **6223J** and/or **6323J** 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, firewall or driver door jamb.



## eMDCS - Warranty Vehicle Inquiry Results:

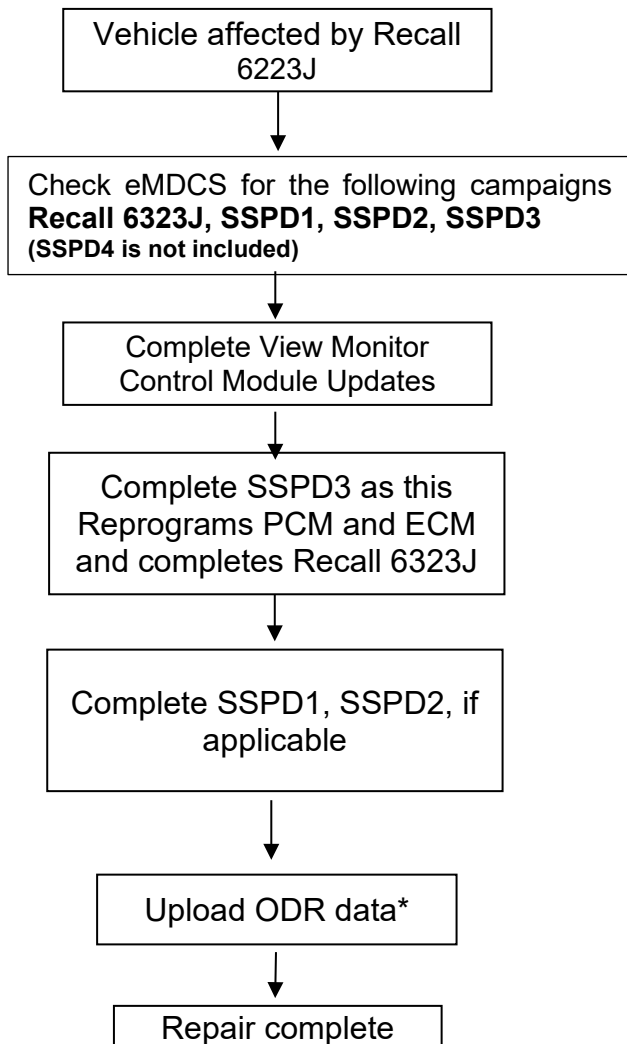
If eMDCS displays:	Campaign Label is:	Action to perform:
If no repair date is displayed on the line with CAMPAIGN 6223J, and/or 6323J or any of the SSP campaigns has not been completed on this vehicle	Present	Fill out Dealer Recall Help on OneMazda contact or the Mazda Warranty Department at <a href="mailto:warrantydept@mazdausa.com">warrantydept@mazdausa.com</a> to review vehicle history.
	Not present	Proceed to "REPAIR PROCEDURE".
If repair date is displayed for CAMPAIGN 6223J and/or 6323J or any of the SSP campaigns 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 6223J and/or 6323J or any of the SSP campaigns is not displayed	See Action	<b>The vehicle is not affected by the Recall or SSP</b>

**Technician level required: Certified or above (Does not need to be Hybrid certified).**

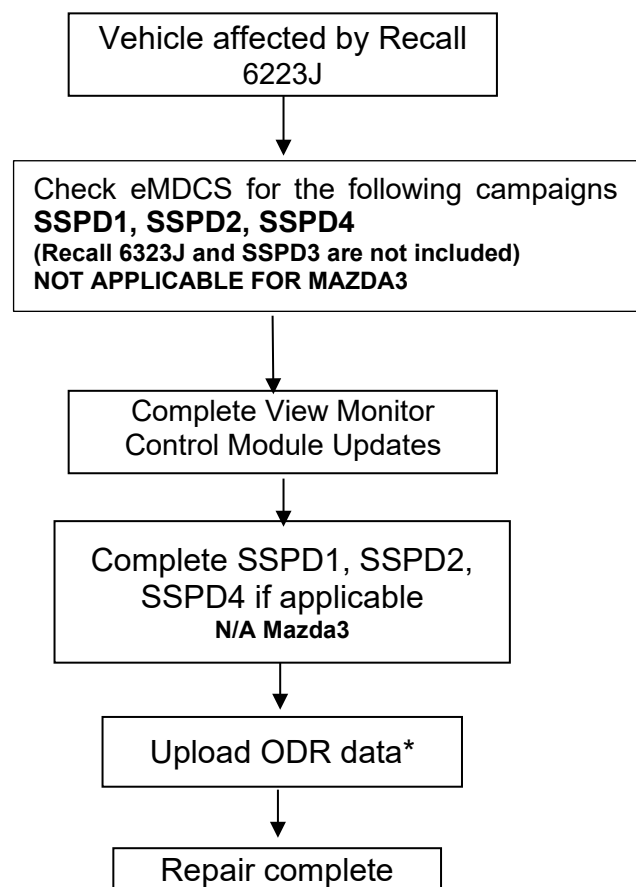
**Note:** Technician repairing needs to be Certified or above and does not need to be Senior or Master as long as they have had the required training for updating modules in the vehicle affected by these campaigns.

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

**CX-90 PHEV**



**CX-90 TURBO AND TURBO S Mazda3**



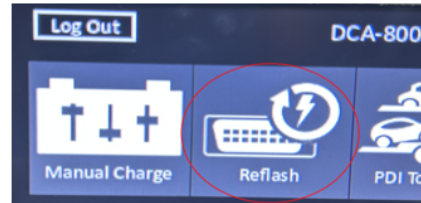
**\*NOTE: All vehicles require the upload of ODR after the technician has completed all software updates. If ODR is not uploaded successfully, or if one or more software updates are missed, the applicable campaign(s) will remain open, the warranty claim will not accept, and your dealer will have to contact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

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

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.

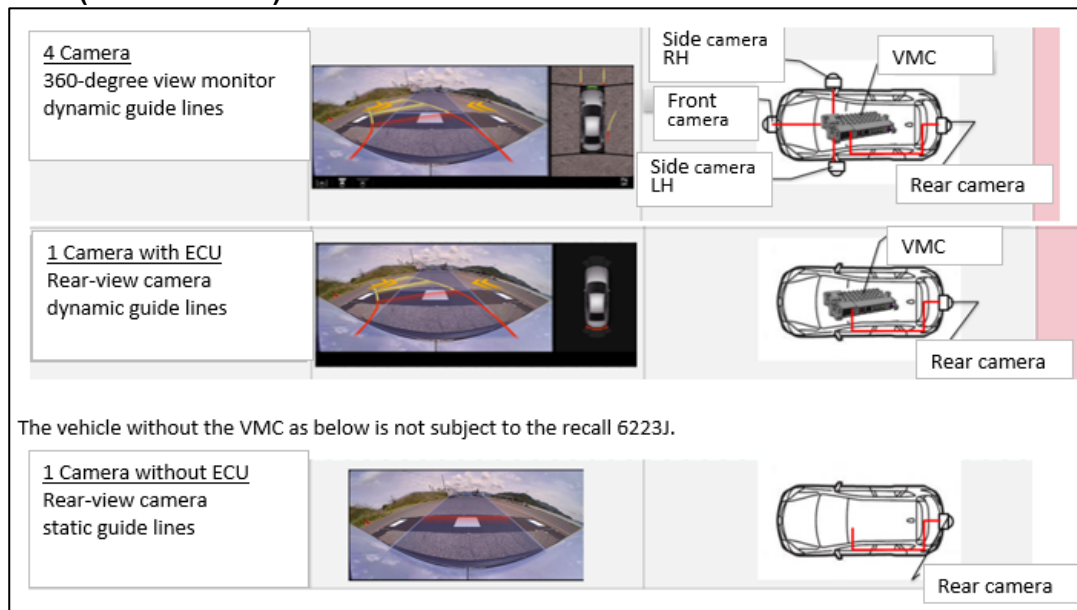
7<sup>th</sup> generation vehicle will control to turn on headlight forcibly during reprogramming due to change CAN communication. Please use the “Refresh” setting in the charger, which will keep the voltage stable.



## Section B : Repair Procedure Recall 6223J

### NOTE:

1. Make sure that HV charging cable is not connected to HV battery charging port.
2. Recall 6223J applies to vehicles with a Rear View (one camera) or a 360 Degree Camera (four cameras) with a **VMC – View Monitor Control Module - NOT VCM!**



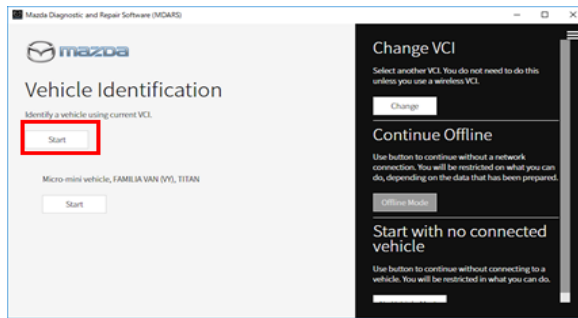
### Vehicle Identification

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

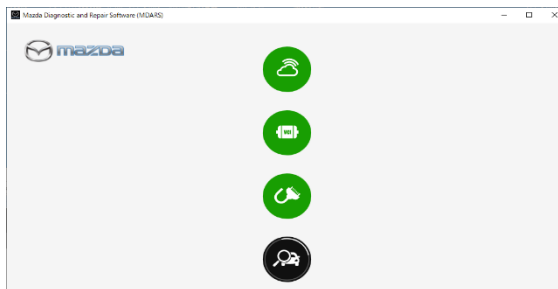
**CAUTION: DO NOT UPDATE THE VCM – Vehicle Control Module.** Connect the DLC cable and the VCM- II to the vehicle with the ignition OFF. The CAN bus line might detect some noise and it might cause a diagnostic error when connecting the DLC cable with the ignition ON.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

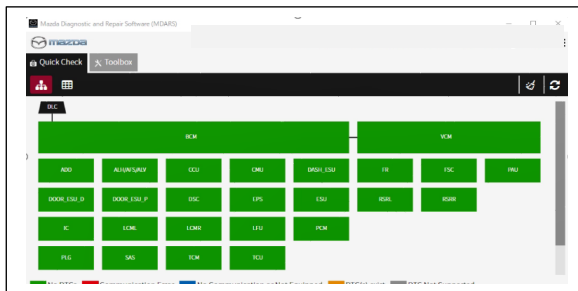
1. Click the "Start" button.



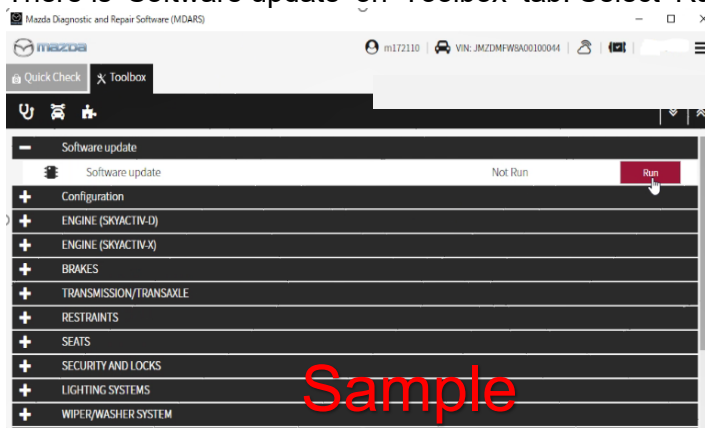
2. The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



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.**



4. Reprogram VMC - View Monitor Control Module as below. There is 'Software update' on 'Toolbox' tab. Select 'Run'.



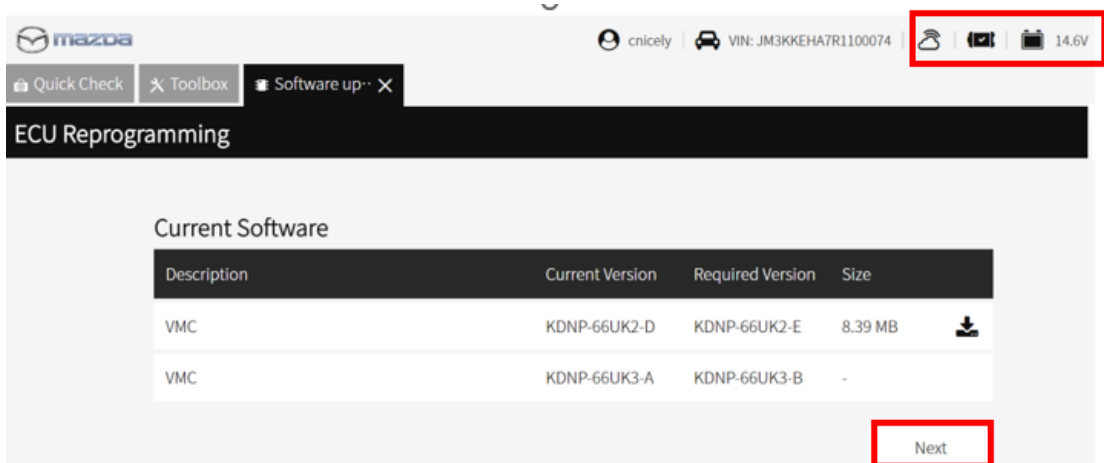
5. Select required module on 'ECU Reprogramming' screen. Start Reprogramming.
  - **VMC (View Monitor Control Module)**

**NOTE: if software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step**


# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

(ODR transmission).

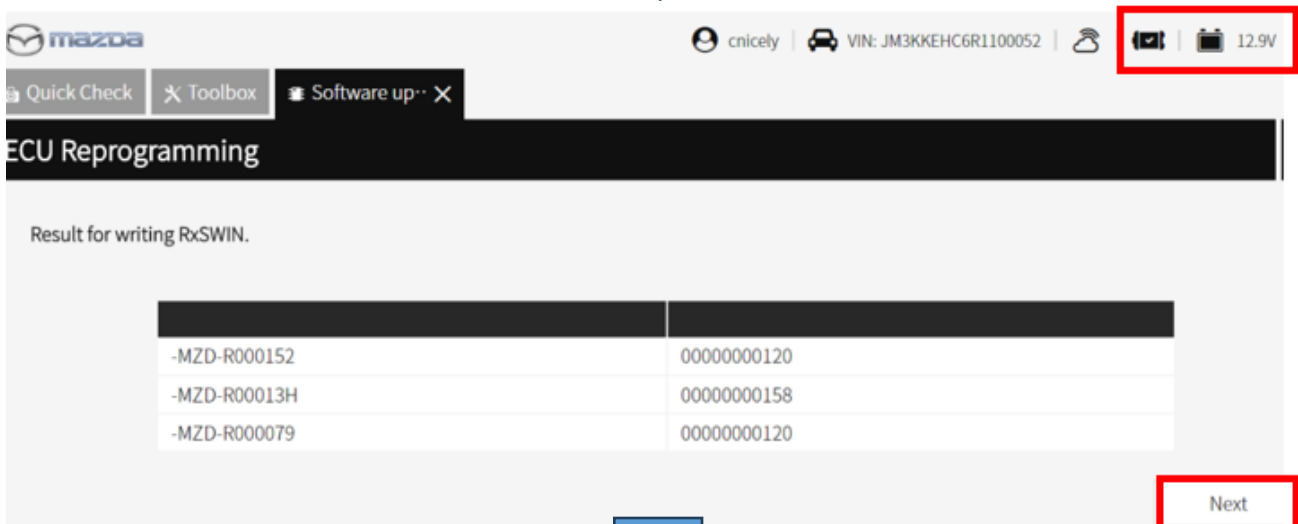
6. After completion of software update, the previous and current software version are shown. Check current version at “Calibration File information” below. **NOTE: The software may be updated, if it is the current version proceed to the next step, ODR data transmission.**
  - a. Then, click on “Finish” to exit the ECU reprogramming and disconnect the 12V battery charger.
  - b. Then, perform the ODR update procedure (Step 7).



The screenshot shows the Mazda software update interface. At the top, there is a navigation bar with 'Quick Check', 'Toolbox', and 'Software up...' tabs. The main heading is 'ECU Reprogramming'. Below this, a section titled 'Current Software' contains a table with the following data:

Description	Current Version	Required Version	Size	
VMC	KDNP-66UK2-D	KDNP-66UK2-E	8.39 MB	
VMC	KDNP-66UK3-A	KDNP-66UK3-B	-	

A 'Next' button is located at the bottom right of the table area. The top right corner of the interface shows a battery icon and '14.6V'.



The screenshot shows the Mazda software update interface after the software update. The main heading is 'ECU Reprogramming'. Below this, a section titled 'Result for writing RxSWIN' contains a table with the following data:

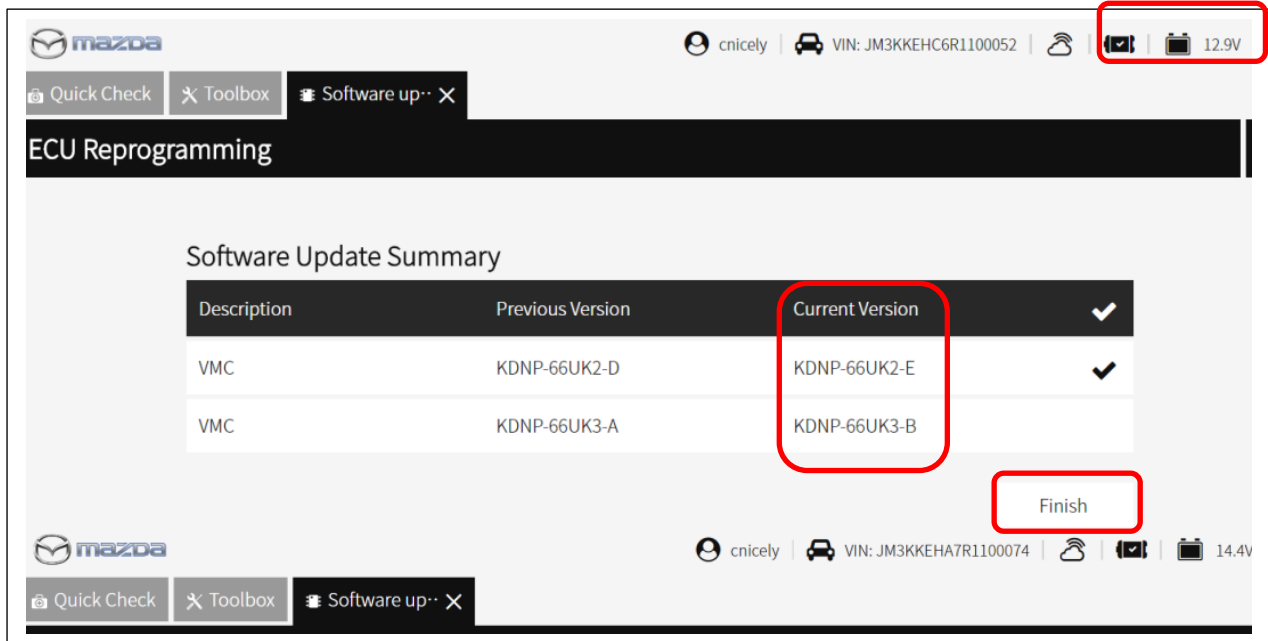
-MZD-R000152	00000000120
-MZD-R00013H	00000000158
-MZD-R000079	00000000120

A 'Next' button is located at the bottom right of the table area. The top right corner of the interface shows a battery icon and '12.9V'.



**CX-90 Shown**

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING



### Calibration file information

NOTE: - If software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step. **NOTE: If software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step (ODR transmission).**

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note
VMC (View Monitor Control Module)	KDNP-66UU0	KDNP-66UK2-E	16	CX-90 4 Camera
		KDNP-66UK3-B		
	KEME-66UU0	KEME-66UK2-E		CX-90 1 Camera
		KEME-66UK3-B		
	BHSC-66UU0	BHSC-66UK2-B		Mazda3 4 Camera
		BHSC-66UK3-B		
	BHSD-66UU0	BHSD-66UK2-B		Mazda3 1 Camera
		BHSD-66UK3-B		

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

## 7. PERFORM OTHER REQUIRED SOFTWARE UPDATES AND THEN PERFORM ODR DATA UPLOAD

a. [CLICK HERE TO GO TO INSTRUCTIONS FOR ODR DATA UPLOAD](#)

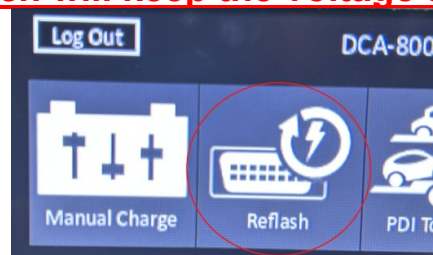
## Section B : Repair Procedure SSPD3 & Recall 6323J

SSPD3 contains a later calibration of the same two modules, so this will also repair Recall 6323J. (Steps 1-4 do not need to be done if already performed Recall 6223J)

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.

7<sup>th</sup> 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.



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

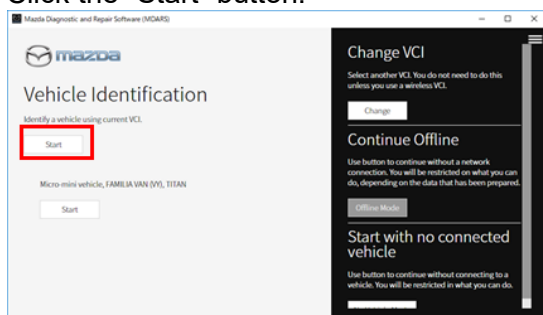
### Vehicle Identification

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

**CAUTION: DO NOT UPDATE THE VCM – Vehicle Control Module.**

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.

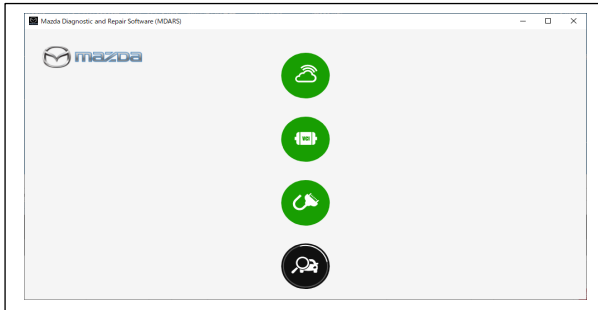
1. Click the “Start” button.



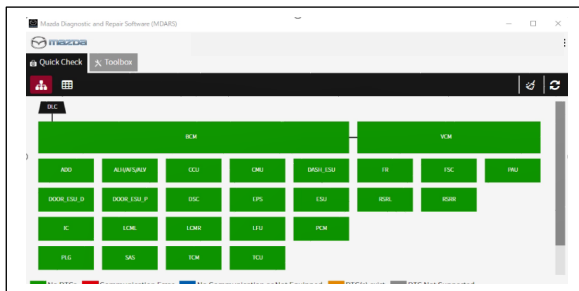


# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

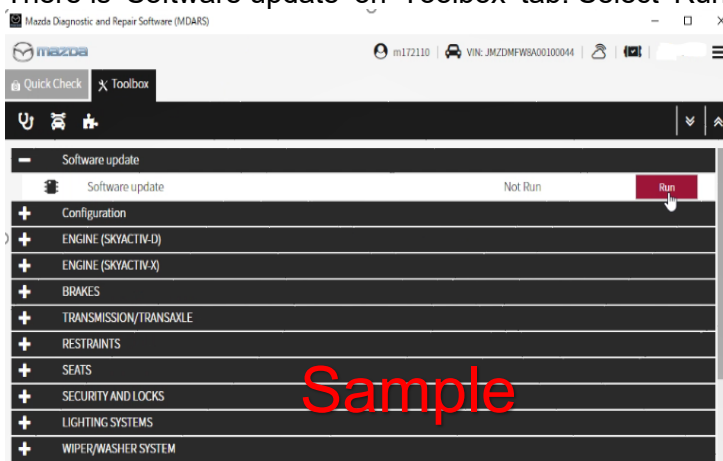
- The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



- 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.



- Reprogram PCM and ECM as below  
There is 'Software update' on 'Toolbox' tab. Select 'Run'.

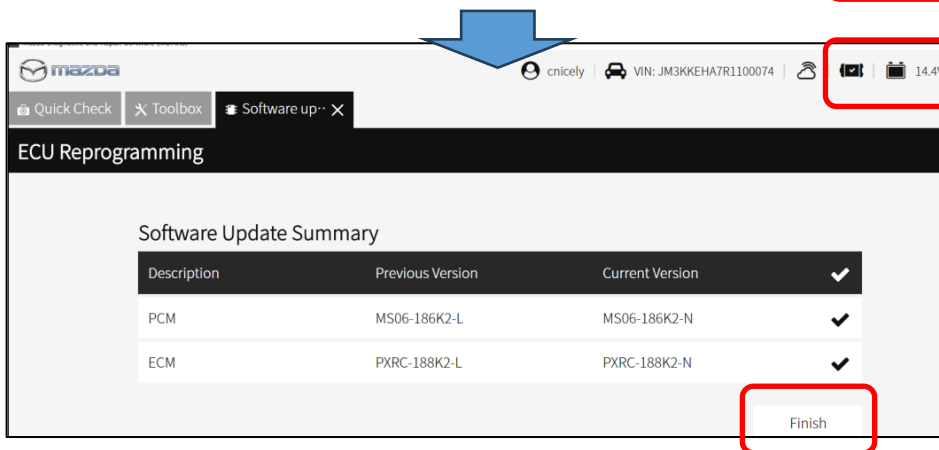
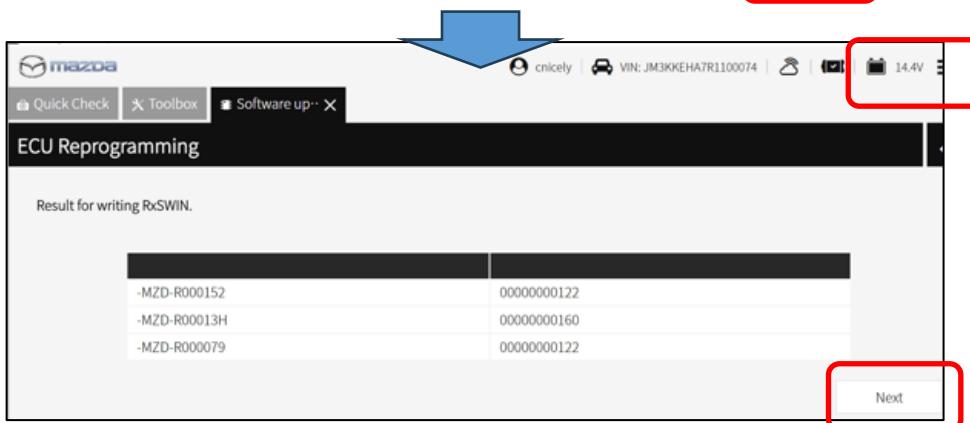
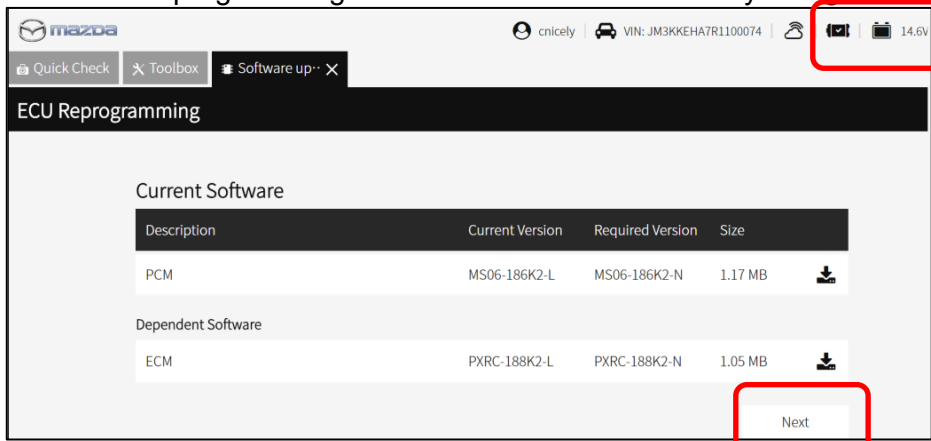


- Select required module on 'ECU Reprogramming' screen.  
Start Reprogramming.
  - **PCM**
  - **ECM**

**NOTE:** If software is already the latest version, MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step. By reprogramming either PCM or ECM, another module will be reprogrammed at the same time. Confirm PCM and ECM software are required version or later suffix at step 6.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

- 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 and disconnect the 12V battery charger.



## Calibration file information

NOTE: - If the calibration file is updated to the latest version (suffix) in the table or later, the unit is already updated. Please continue with the repair. **NOTE: If the calibration file is updated to the latest version (suffix) in the table or later, the unit is already updated. Please continue to the next step (ODR data transmission).**

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note
PCM	MS01-186B1	MS05-186K2-M or greater	4	PHEV AWD 1500W PSU
		MS06-186K2-M or greater		PHEV AWD
ECM	PXGH-18881	PXRC-188K2-M or greater	4	-

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

### 7. PERFORM OTHER REQUIRED SOFTWARE UPDATES AND THEN PERFORM ODR DATA UPLOAD

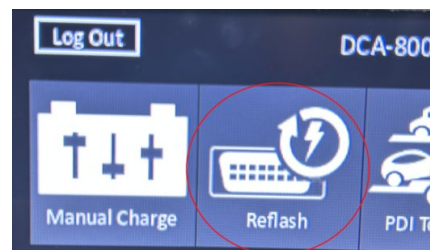
a. [CLICK HERE TO GO TO INSTRUCTIONS FOR ODR DATA UPLOAD](#)

## Section B : Repair Procedure SSPD4 (Steps 1-4 do not need to be done if already performed another update)

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.

7<sup>th</sup> 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.



### Vehicle Identification

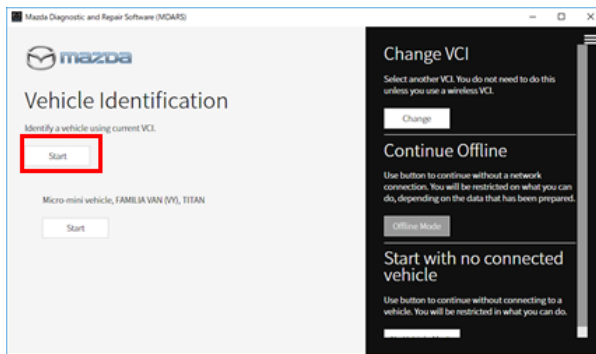
Connect MDARS with the DLC cable and VCM-II to the vehicle, then set the ignition to the ON position.

### CAUTION:

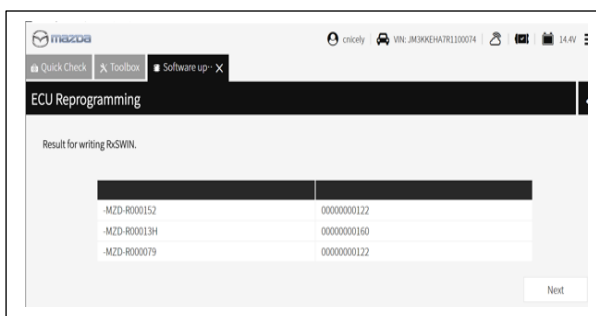
Connect the DLC cable and the VCM-II to the vehicle with the ignition OFF. The CAN bus line might detect some noise and it might cause a diagnostic error when connecting the DLC cable with the ignition ON.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

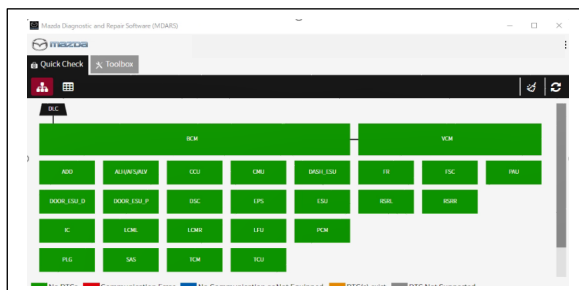
1. Click the “Start” button.



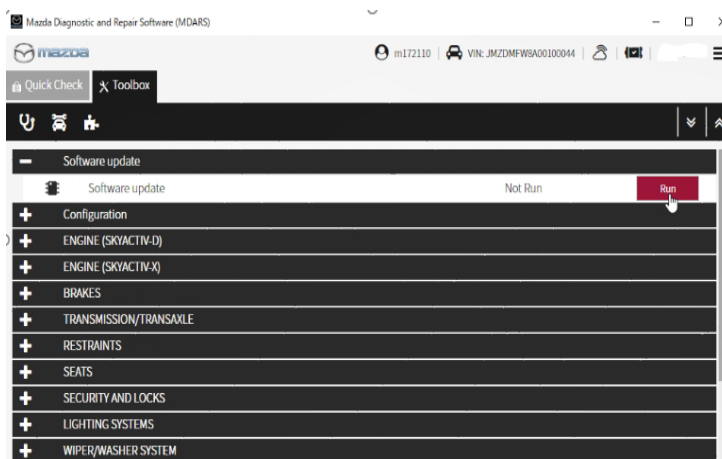
2. The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



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.



4. Reprogram PCM as below  
There is ‘Software update’ on ‘Toolbox’ tab. Select ‘Run’.



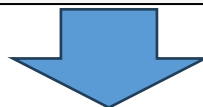
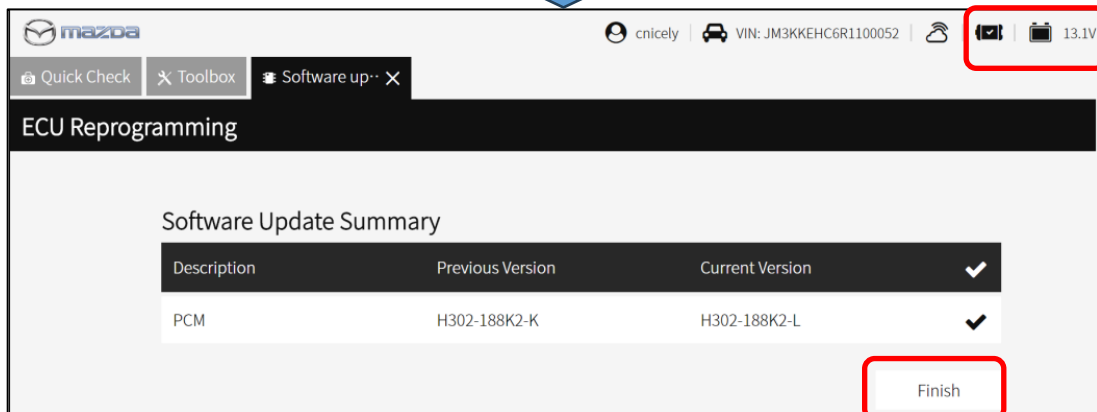
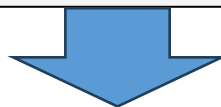
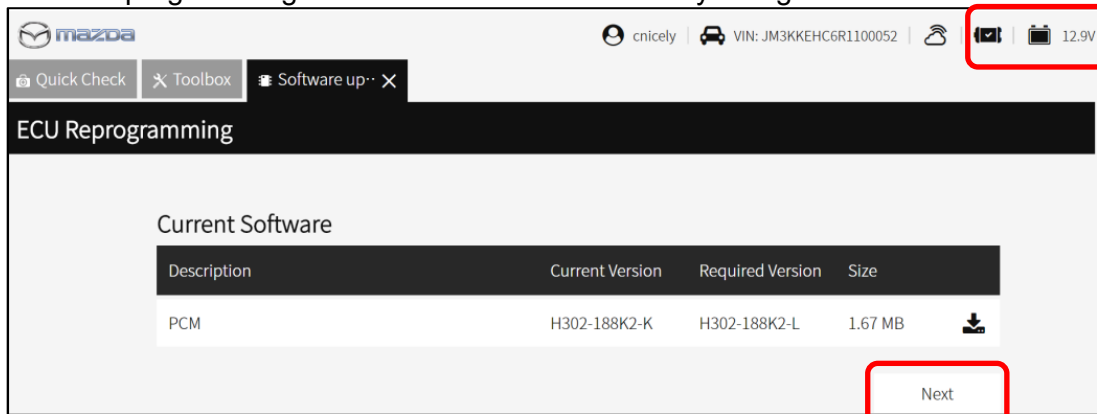
# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

- Select required module on 'ECU Reprogramming' screen. Start Reprogramming.

**- PCM**

**NOTE: If software is already the latest version, MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**

- 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 and disconnect the 12V battery charger.



Calibration file information

**NOTE: - If software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note
PCM	H301-18881	H301-188K2-L	7	H3T MHEV AWD LO
		H302-188K2-L		H3T MHEV AWD HI

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

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

## 7. PERFORM OTHER REQUIRED SOFTWARE UPDATES AND THEN PERFORM ODR DATA UPLOAD

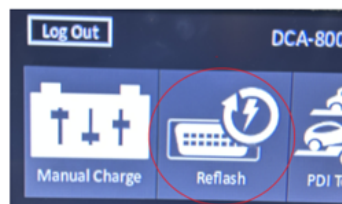
a. [CLICK HERE TO GO TO INSTRUCTIONS FOR ODR DATA UPLOAD](#)

### Section B : Repair Procedure SSPD1 (Steps 1-4 do not need to be done if already performed another update)

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.

7<sup>th</sup> 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.



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

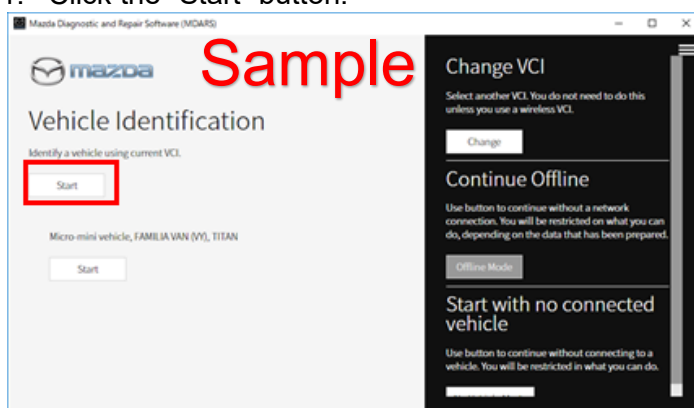
#### Vehicle Identification

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

#### CAUTION:

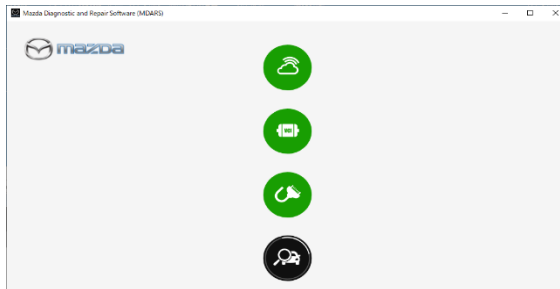
Connect the DLC cable and the VCM- II to the vehicle with the ignition OFF. The CAN bus line might detect some noise and it might cause a diagnostic error when connecting the DLC cable with the ignition ON.

1. Click the "Start" button.

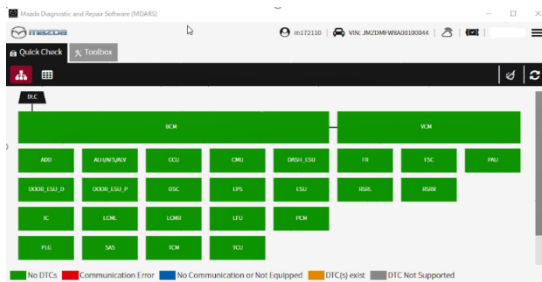


# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

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



- Verify the DTC according to the directions on the quick check screen.



**NOTE:** This campaign will not repair existing DTC(s).

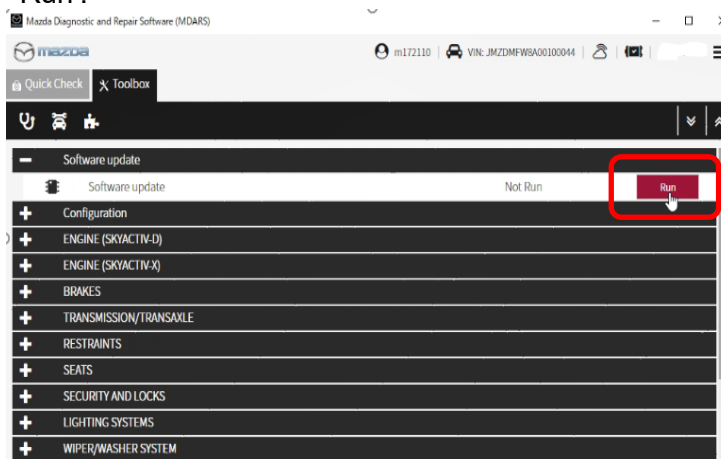
If any of the following DTC's are stored, clear the DTC(s).

- [U3000:01-0B:FSRR](#) – Front side radar sensor (RH) internal malfunction.
- [U3000:01-0B:RSRL](#) – Rear side radar sensor (LH) internal malfunction
- [B14F1:04 \[VMC\]](#) – Front side radar sensor (LH)/(RH) internal malfunction or poor installation
- [B1542:00-0B:VMC](#) – Rear side radar sensor related malfunction
- [B14F2:04-0B:VMC](#) – Rear side radar sensor (LH)/(RH) internal malfunction or poor installation

Did the DTC(s) clear?

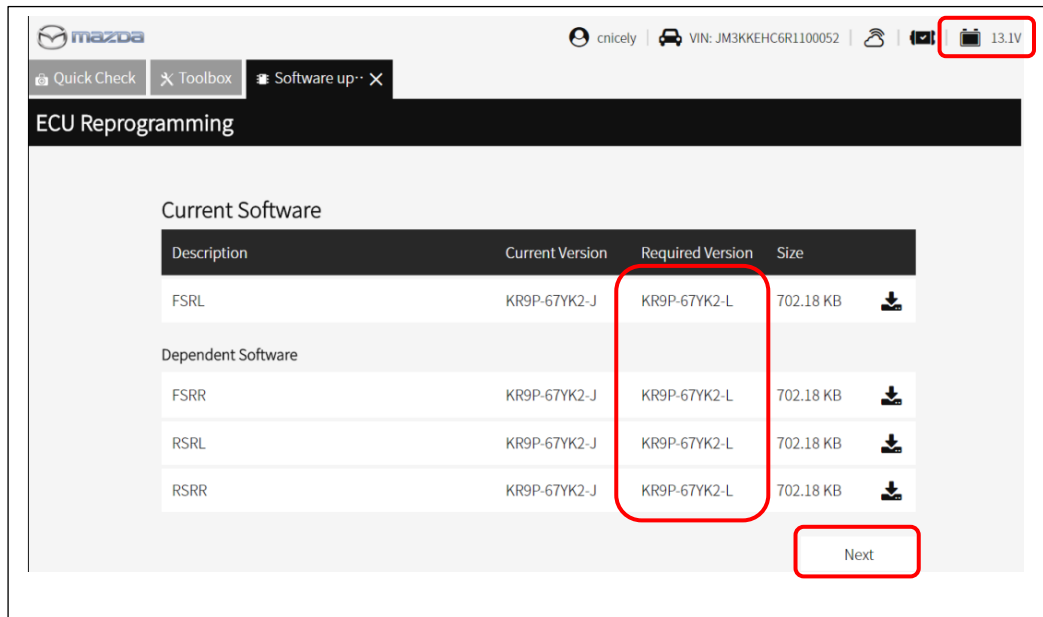
- Yes – Go to next step.
- No - Does vehicle have a history of battery discharge?
  - Yes – Replace the Side Radar Sensor(s) related to the DTC stored.
    - **NOTE:** If replacement part is not available, order part and continue with repairs (Do Not Hold Vehicle).
  - No – Perform needed repair per MGSS troubleshooting.

- Reprogram Side Radar as below. If there is 'Software update' on 'Toolbox' tab. Select 'Run'.



# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

5. Select required module on 'ECU Reprogramming' screen.
6. Start Reprogramming.



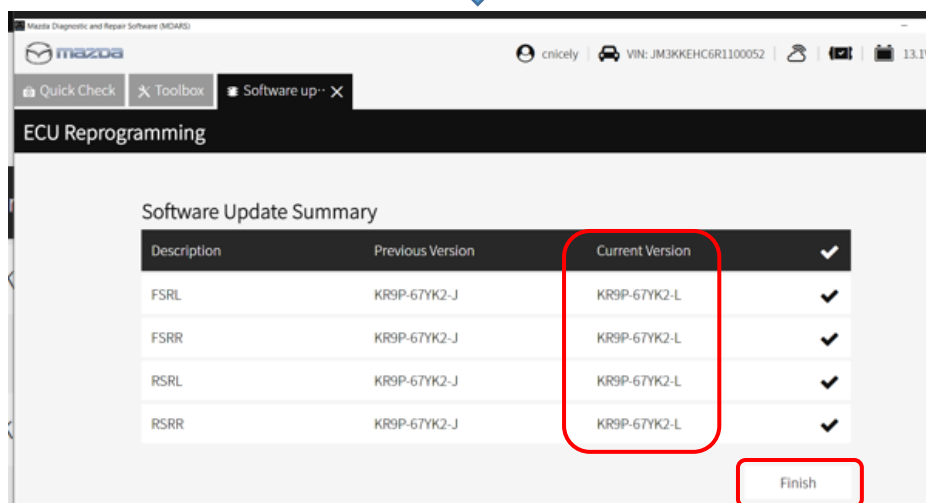
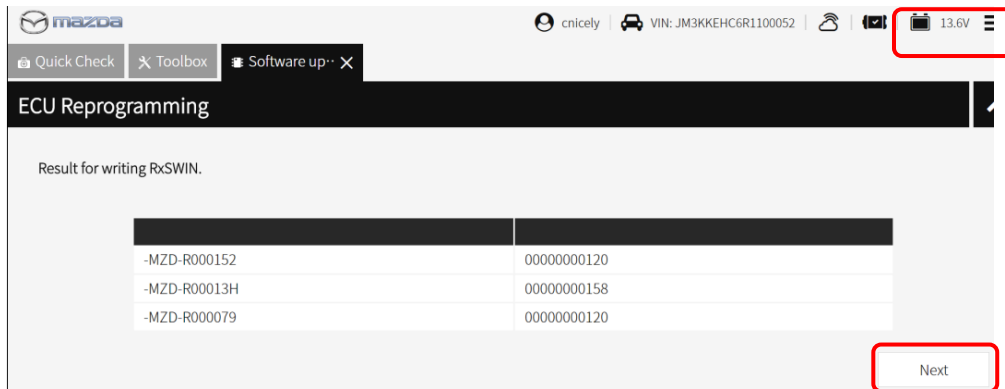
Side Radar Sensor ECU Programming	Applicable Vehicle	Not Applicable
<p><b><u>NOTE: Not all trims have Front Side Radar</u></b></p> <ul style="list-style-type: none"> <li>• FSRR (Front Side Radar Right)</li> <li>• FSRL (Front Side Radar Left)</li> </ul>	<p>Standard PT</p> <ul style="list-style-type: none"> <li>• 3.3 Turbo Premium Plus</li> </ul> <p>High PT</p> <ul style="list-style-type: none"> <li>• 3.3 Turbo S Premium Plus</li> </ul> <p>PHEV</p> <ul style="list-style-type: none"> <li>• PHEV Premium Plus</li> </ul>	<p>Standard PT</p> <ul style="list-style-type: none"> <li>• 3.3 Turbo Select</li> <li>• 3.3 Turbo Preferred</li> <li>• 3.3 Turbo Preferred Plus</li> <li>• 3.3 Turbo Premium</li> </ul> <p>High PT</p> <ul style="list-style-type: none"> <li>• 3.3 Turbo S</li> </ul> <p>PHEV</p> <ul style="list-style-type: none"> <li>• PHEV Preferred</li> <li>• PHEV Premium</li> </ul>
<ul style="list-style-type: none"> <li>• RSRR (Rear Side Radar Right)</li> <li>• RSRL (Rear Side Radar Left)</li> </ul>	All	N/A – All vehicles have Rear Side Radar Sensors

**NOTE: If software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**

7. 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 and disconnect the 12V battery charger.



# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING



## Calibration file information

**NOTE: - software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note
FSRR FSRL RSRR RSRL	KR9P-67Y30	KR9P-67YK2-L	16	-

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

## 8. PERFORM OTHER REQUIRED SOFTWARE UPDATES AND THEN PERFORM ODR DATA UPLOAD

a. [CLICK HERE TO GO TO INSTRUCTIONS FOR ODR DATA UPLOAD](#)

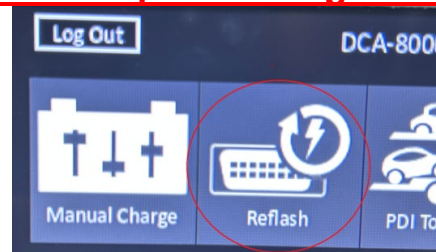
## Section B: Repair Procedure SSPD2 – (Steps 1-4 do not need to be done if already performed another update)

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

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.

7<sup>th</sup> 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.



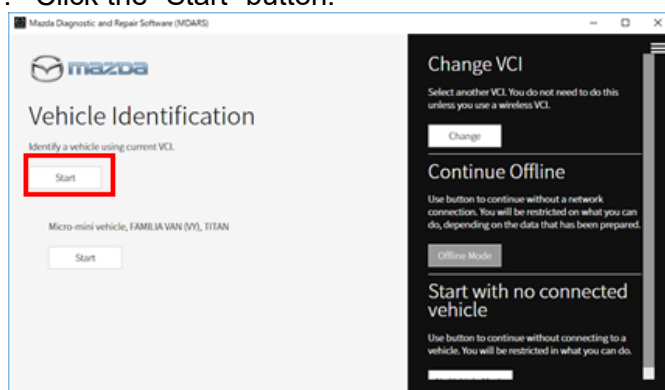
### Vehicle Identification

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

#### CAUTION:

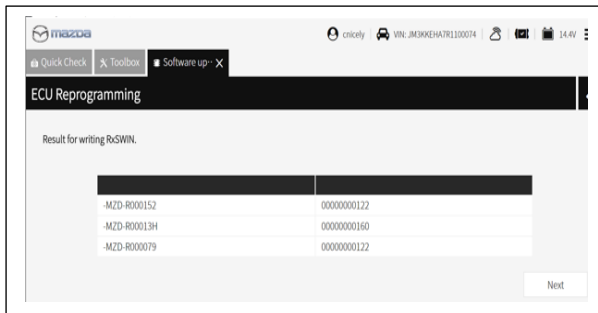
Connect the DLC cable and the VCM-II to the vehicle with the ignition OFF. The CAN bus line might detect some noise and it might cause a diagnostic error when connecting the DLC cable with the ignition ON.

1. Click the “Start” button.

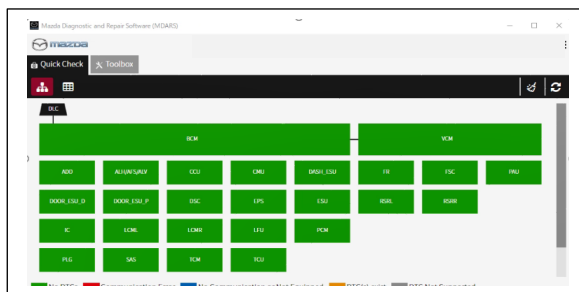


# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

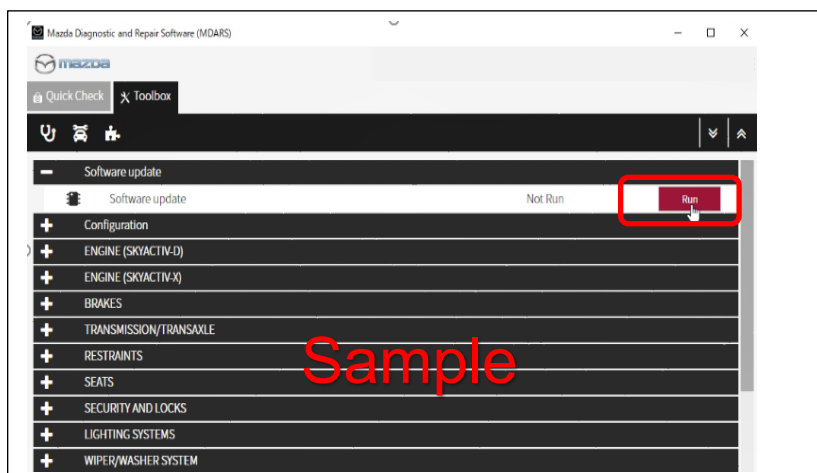
- The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



- 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.



- Reprogram TCM as below  
There is 'Software update' on 'Toolbox' tab. Select 'Run'.



- Select required module on 'ECU Reprogramming' screen. Start Reprogramming.
  - TCM**

**NOTE: software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**
- 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 and disconnect the 12V battery charger.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

Current Software

Description	Current Version	Required Version	Size	
TCM	H328-21PS1-G	H328-21PS1-J	1.23 MB	

**CX-90 Turbo Shown**

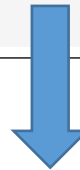
Next



Result for writing RxsWIN.

-MZD-R000152	00000000120
-MZD-R00013H	00000000158
-MZD-R000079	00000000120

Next



Software Update Summary

Description	Previous Version	Current Version	
TCM	H328-21PS1-G	H328-21PS1-J	

Finish

**CX-90 Turbo Shown**

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

## Calibration File Information:

**NOTE: - If software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.**

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.) PLUS RELEARN	Note
TCM	RZ01-219E1	H327-21PS1-J	35m H3T MHEV	H3T MHEV AWD LO
		H328-21PS1-J		H3T MHEV AWD HI
		PXPN-21PS1-G	27m PHEV	PHEV AWD

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

## **Proceed to TCM Initial Learning after reprogramming**

### **TCM Initial Learning after reprogramming**

#### **Warning**

- When performing the initial learning, apply the parking brake securely and block the front and rear wheels using wheel chocks so that the vehicle does not move. Otherwise, the vehicle may move which could lead to an accident because the gears are forcibly changed with the engine running and the shift lever in the drive position while in the initial learning.

#### **Note:**

- While the initial learning is being performed, the following phenomena may occur.
  - Shift shock occurs intermittently.
  - Indications such as selector lever positions differ from those displayed normally.

#### **Preparation before servicing**

8. Switch the ignition ON (engine on)/main power ON (READY on).
9. Apply the parking brake.
10. Shift the selector lever to P range, and set the wheel chocks for both the front and rear wheels.
11. The ATF temperature is 45°C to 105°C as an execution condition for AT initial learning, but after learning starts, the ATF temperature may drop to 44°C and learning may be interrupted, so learning should be started after raising the temperature to 50°C or higher.

#### **Initial learning procedure**

12. Connect the M-MDS to the DLC-2.
13. Open the engine hood. (To ensure that the engine starts. If engine hood is opened, EV mode does no work)
14. Switch the ignition ON (engine off).
15. Perform the following procedure using the M-MDS.
  - i) Press [Start] for the vehicle identification.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

ii) Press the [Toolbox] tab.

iii) Press the [Work Support] icon.



iv) Press [TRANSMISSION/TRANSAXLE].

v) Press [Run] for Initial learning of AT.

16. Perform the automatic transmission initial learning.

17. Using the M-MDS, verify that TCM DTC P06B8:00 has not been stored. (See DTC INSPECTION.)

- If DTC P06B8:00 is displayed, switch the ignition off/main power OFF and repeat the procedure from Step 15.
- If any other DTCs are displayed, repair or replace the malfunctioning location according to the applicable DTC troubleshooting of workshop manual.

18. Disconnect the M-MDS and perform following learning procedure.

### **PowerTrain start-up learning**

- (1) Switch the ignition ON. Either “Engine run” or “READY ON (NOT Engine run)” is fine.
- (2) After holding the idling or READY ON for 5 seconds or more, turn the ignition switch OFF and hold it for 5 seconds or more.
- (3) Repeat steps (1) and (2) above for 3 times.

### **Shift range learning**

- (1) Switch the ignition ON. Either “Engine run” or “READY ON (NOT Engine run)” is fine.
- (2) While idling or READY ON, depress the brake and perform the following steps.
  - i) Move the shift lever in "D".
  - ii) Move the shift lever from "D" to "R" and wait 5 seconds \*
  - iii) Move the shift lever from "R" to "D" and wait 5 seconds \*

\* Do not stop in N range while moving the shift lever.

- (3) Repeat steps i) to iii) for 5 times.

### **Note:**

In addition to the above learning, TCM also performs learning while driving automatically. Immediately after reprogramming and initial learning, the above driving learning will be reset. Therefore, it is important to explain the followings to customers.

### **Explanation to customers**

To improve shift feel, the vehicle learns the timing of engaging the clutch while driving. This reprogramming will improve the shift feel and optimize by learning. However, the learning values would be reset to initial once.

Once the learning values were initialized, a slight shift shock might be felt intermittently, however by proceeding the learning by driving. It may take a few days but it will be improved.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

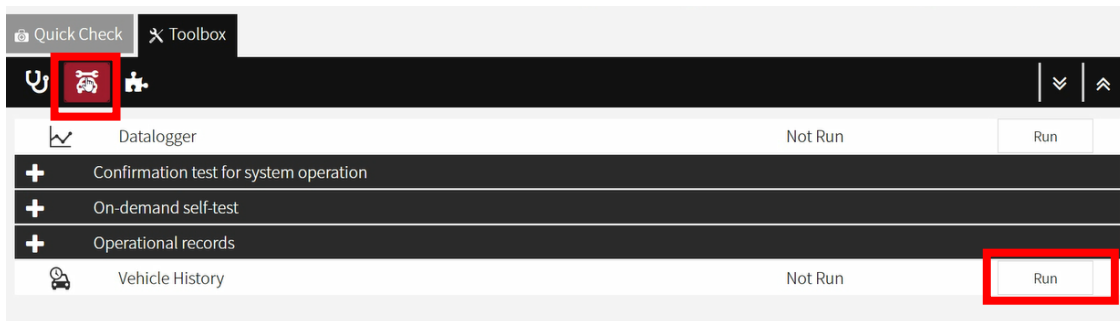
## PERFORM OTHER REQUIRED SOFTWARE UPDATES AND THEN PERFORM MANUAL ODR DATA UPLOAD (next page)

**WARNING! FAILURE TO UPLOAD ODR DATA WILL RESULT IN CLAIM DENIAL, CAMPAIGN REMAINING IN OPEN STATUS AND VEHICLE HAVING TO COME BACK TO REDO THE DATA PUSH**

### Upload ODR Data

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

7. Open the vehicle history on toolbox tab.

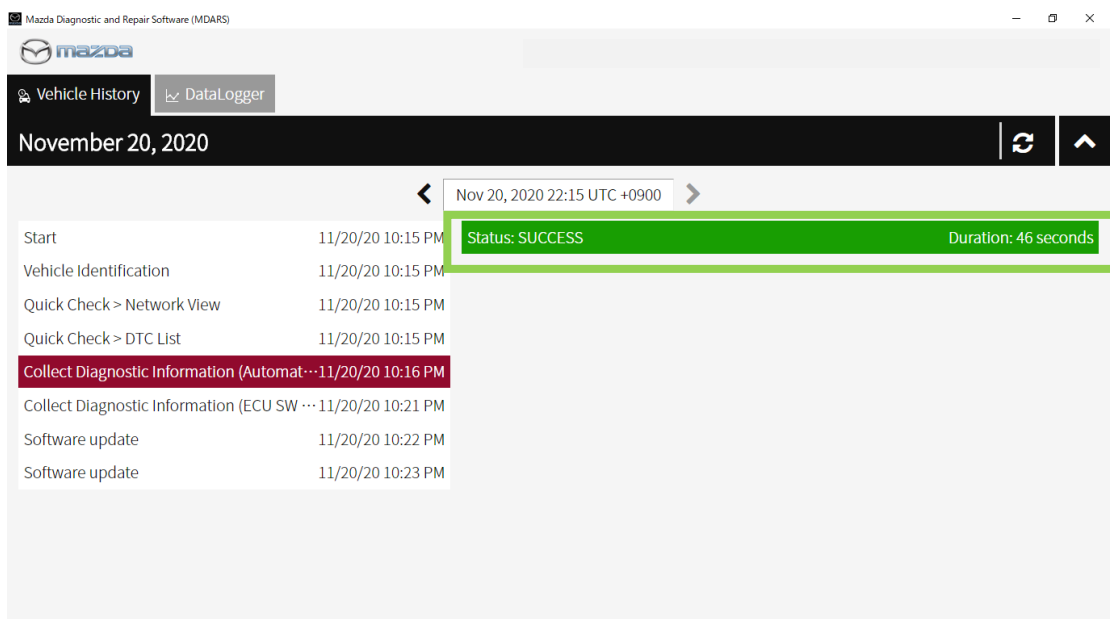


8. Click the 'Collect Diagnostic Information' and the status has 'SUCCESS' on green.

#### 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.

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



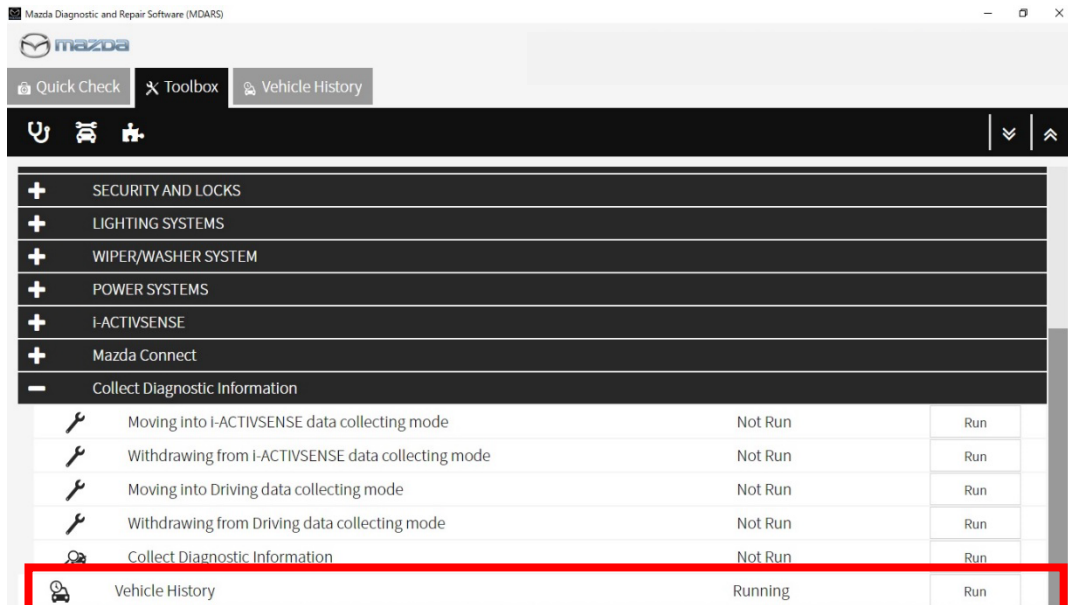
# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

\*\*\*\*\*If the status is 'FAILURE', the ODR (latest vehicle information) has not been submitted to the server. Perform following process.

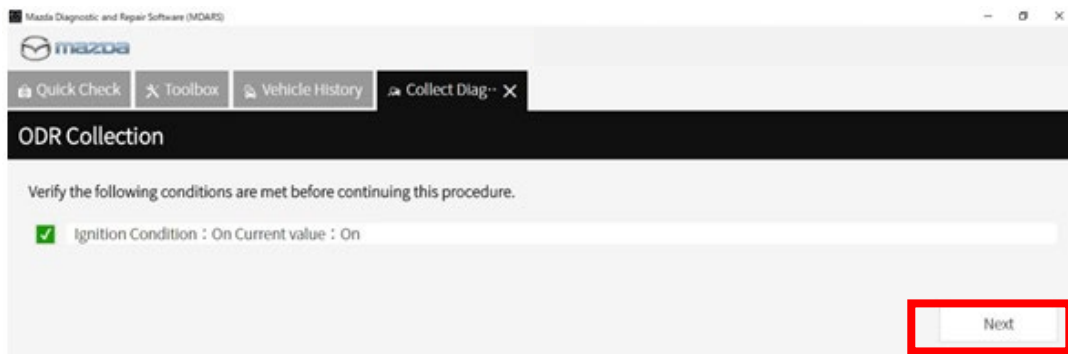
Status: FAILURE

Duration: 1 seconds

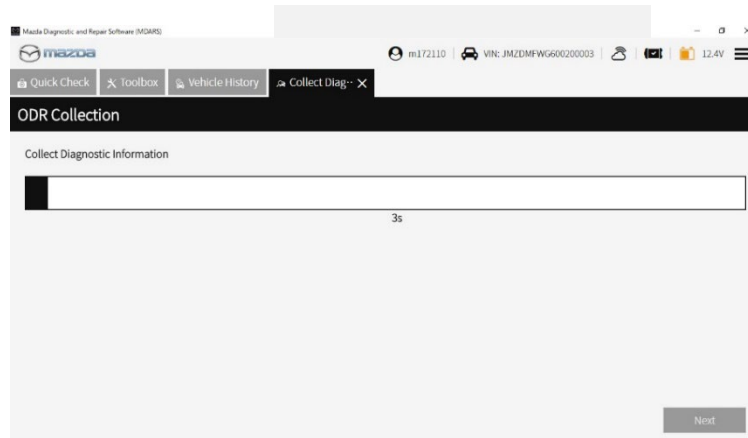
(1)'Collect Diagnostic information' then click 'Run' at the tool box tab.



(2)Click 'Next'



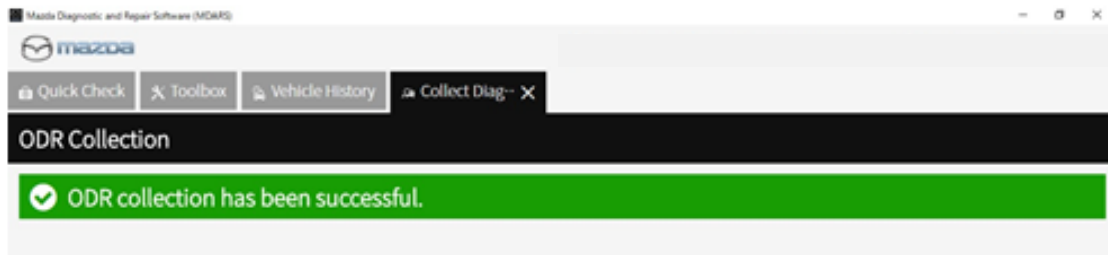
(3)It may take around 60 seconds.



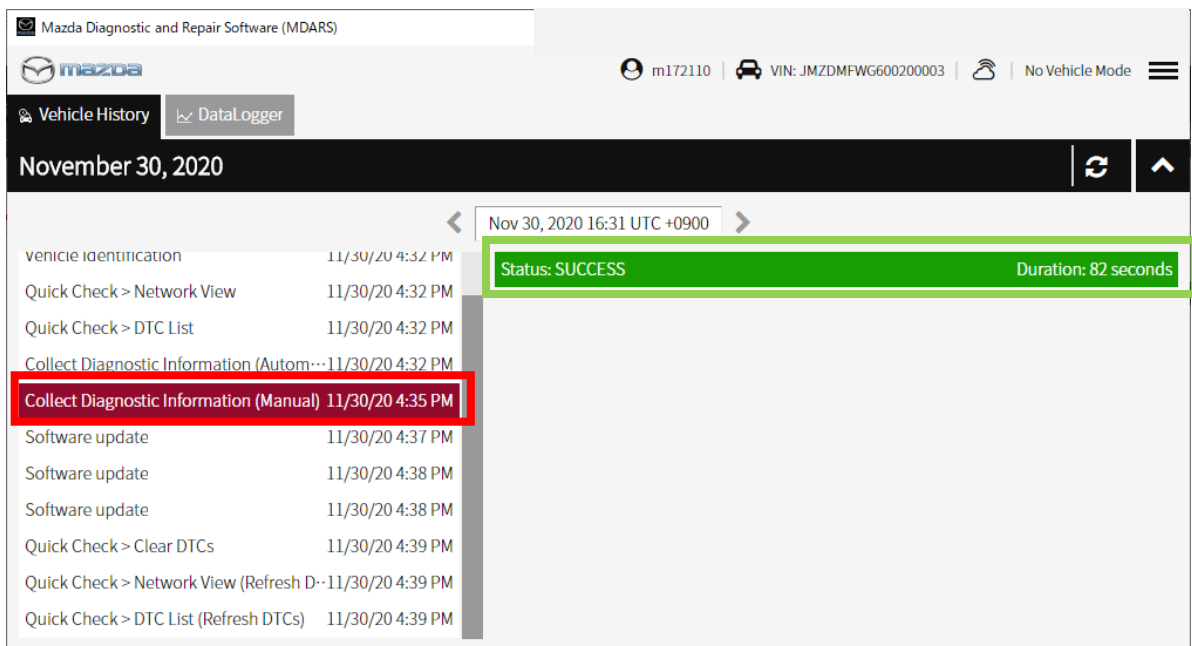


# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

(4) MDARS has collected ODR and sent to the server.



(5) Go back to step 7 and 8 to confirm the Collect Diagnostic Information (Manual) status shows 'SUCCESS' on green.



**Proceed to clearing Sleep Mode after VMC Update (Recall 6223J) and DTC Clear**

## Sleep mode after reprogramming VMC (View Monitor Control Module)

**Note:**

When vehicle was reprogrammed multiple times, the 360° View Monitor may stop its operation such as stop displaying camera output in the center display. Therefore, after reprogramming the VMC, put it into sleep mode to reset the reprogramming count.

**Note:**

Disconnect battery charger before starting "Sleep mode for CAN communication". DCDC converter and the power supply from the battery charger may be interfered and it may causes damages of the battery charger. In addition, warning light may illuminate and DTCs may be stored. (Ex. P0DAA)

### Sleep mode for CAN communication

9. Perform the following operation.

- Switch the ignition off/main power OFF.
- Remove all of the remote transmitters from the vehicle, lock all doors, and then wait for 5 min.

# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

## DTC inspection

**Note:**

Disconnect battery charger before starting engine at next step because the power supply from the DCDC converter and the power supply from the battery charger may interfere and damage the battery charger. Then warning light comes up and DTCs are stored. (Ex. P0DAA)

10. Verify the repair by starting the engine. If subject vehicle is PHEV, proceed with following steps. Make sure there is no MIL illumination or abnormal warning lights present.



<How to start the engine in PHEV>

- (10-1) Switch to 'Sport Mode' and shift to 'D' range
- (10-2) Confirm Engine RPM is shown correctly in IC.
- (10-3) Shift to 'P' range then stop the engine. Turn ignition off.

**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 DTC after all repair work done.

11. If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate troubleshooting section of the Workshop Manual.
12. Disconnect the MDARS from the DLC-2.
13. Move to Section C. Campaign Label(s) installation. You must install a label for all campaigns or highlight multiple campaigns on one label.

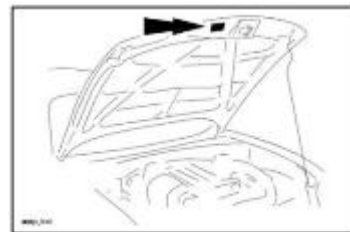
# MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING

## C. CAMPAIGN LABEL INSTALLATION

- a. Fill out a Black “Campaign Label” (9999-95-055A-06) with Campaign #: “6223J, 6323J, SSPD1, SSPD2, SSPD3, SSPD4”, your dealer code, and the repair date. **It is OK to bundle multiple campaigns on one label as long as each campaign is legible.** Use more than one label if necessary. For example, if you repair 6223J, 6323J and SSPD1, then have one label with 2 Safety Recall and the second label with SSPD1.
- b. 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:

CAMPAIGN LABEL	
CAMPAIGN NO:	_____
DEALER CODE:	_____
DATE:	/  /

PIN 9999-95-055A-06



## End of Repair Procedure.