

****** 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 OPEN MSP63 campaign in eMDCS:

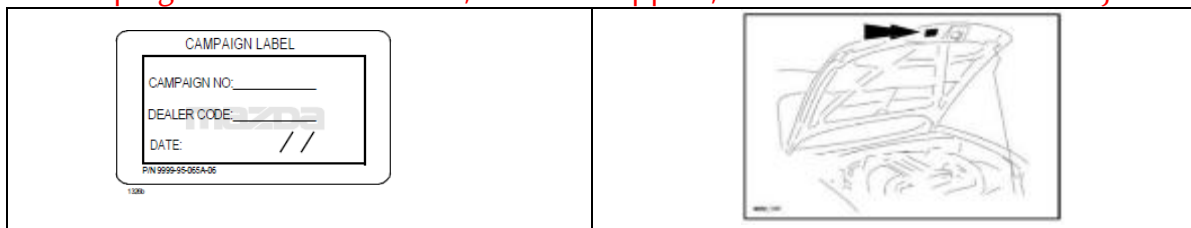
SUBJECT VEHICLES RECALL MSP63

Model	Subject VIN range	Subject production date range
2024MY CX-90	JM3KK**** R1 100077 - 161941	From January 7, 2023, through March 11, 2023

*Only the vehicles in this range and with an "Open" status in eMDCS are affected.

1. If the vehicle is in the range above and MSP63 is in OPEN status in eMDCS, proceed to Step 2. If the vehicle does not have an OPEN MSP63 status, return the vehicle to the customer or inventory.
2. Perform an eMDCS Warranty Vehicle Inquiry and inspect the vehicle for a Campaign Label with MSP63 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 MSP63, 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 MSP63, 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 MSP63 is not displayed	See Action	The vehicle is not affected by the MSP

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

Explanation to customers

- Any ECU reprogramming resets the BCM's average fuel economy (remaining mileage).
- Therefore, the remaining mileage may change after reprogramming.

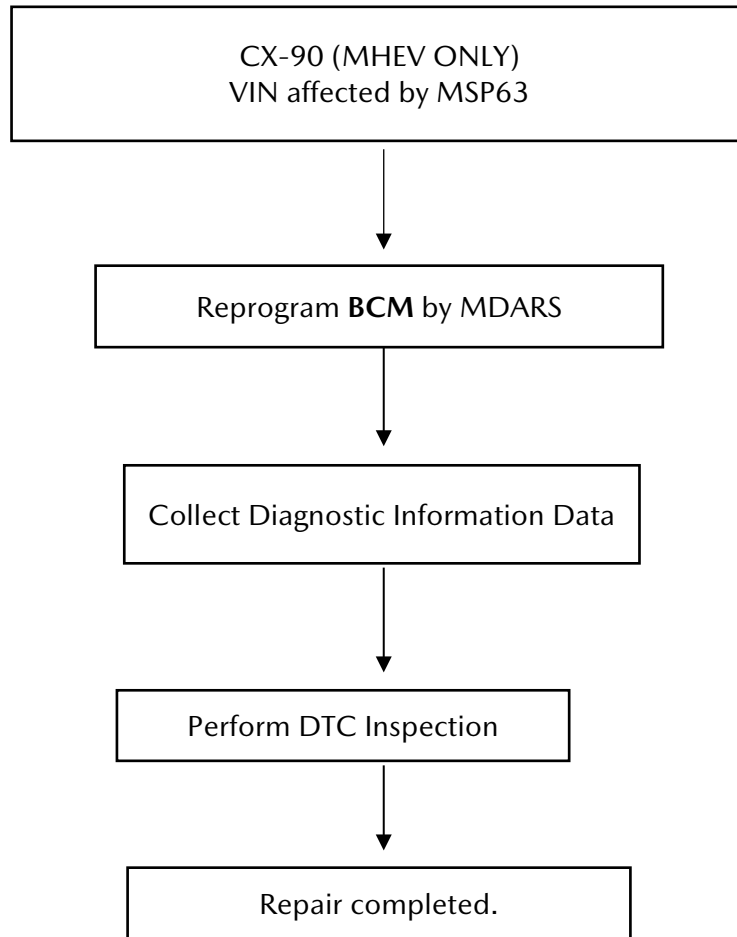
After learning the customer's average fuel consumption calculated over several drives, the remaining mileage will be displayed correctly.

Driving position setting

- Reprogramming the BCM will erase the Driving position memory and Driver personalization system registration data.
- Regarding the above, explain to the customer before reprogramming. And explain to the customer on how to re-register according to the procedures in the Owner's Manual.

Section A: Flow Chart

NOTE: This Flow Chart needs to be followed strictly



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



***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.**

Section B: Repair Procedure

Note: this procedure can be skipped in following cases

- MSP63 is not displayed under the campaign section in Warranty Vehicle Inquiry.

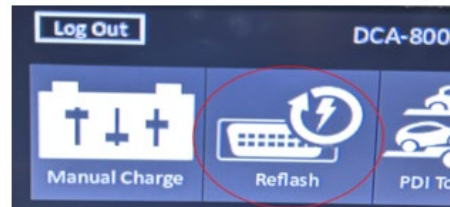
Reprogram BCM by MDARS

CAUTION: PLEASE READ BEFORE REPAIR

Service caution during reprogramming for ECU(s)

During reprogramming, connect the 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 headlights 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.**



NOTE:

- If any DTCs should remain after deleting DTC, diagnose them according to the appropriate Troubleshooting section of the Workshop Manual.

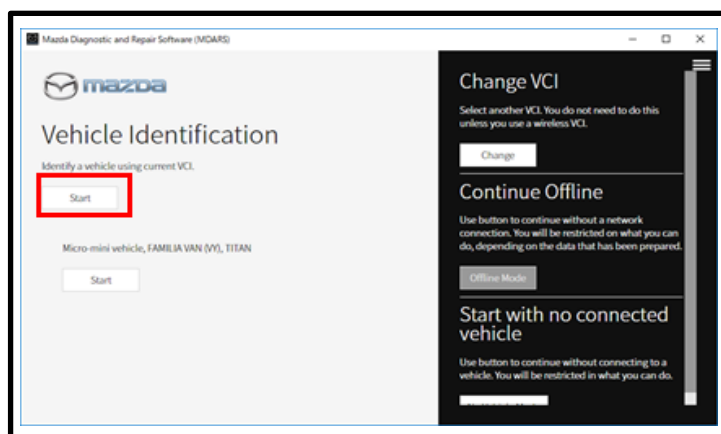
1. Vehicle Identification

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

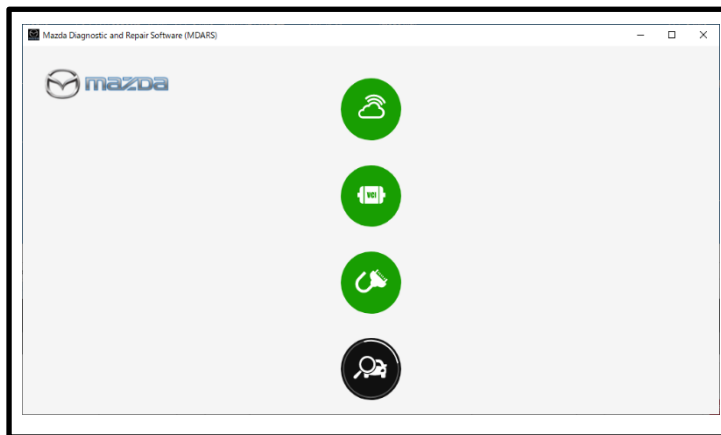
CAUTION:

- 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.

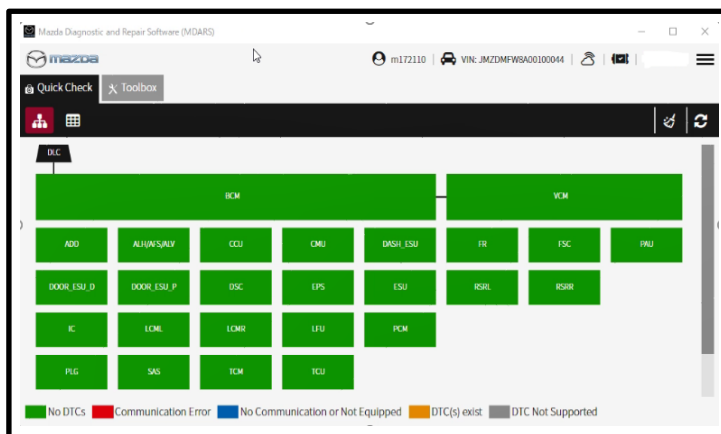
2. Click the "Start" button.



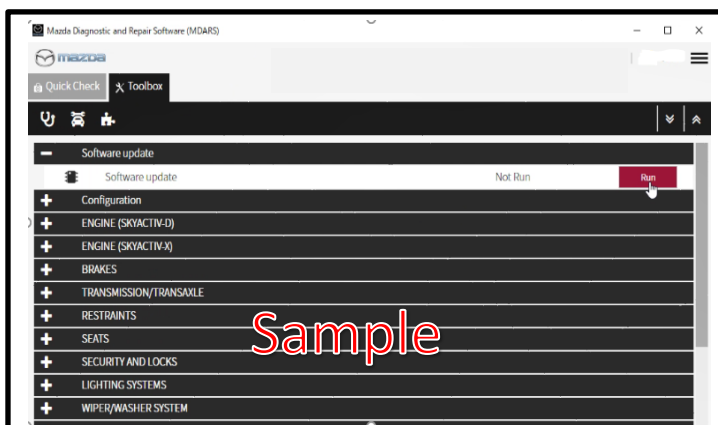
- The Vehicle Identification process will start and automatically inspect every connection and then collect the vehicle information.



- 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 ECUs as below.
 - At 'Software update' on 'Toolbox' tab, select 'Run'. **Note: If the calibration file is the suffix in the table or later (already the latest version) the unit is already modified but do not stop, proceed to Manual ODR Update and complete all required steps in the campaign.**



6. Select **BCM** on 'ECU Reprogramming' screen. Start Reprogramming.

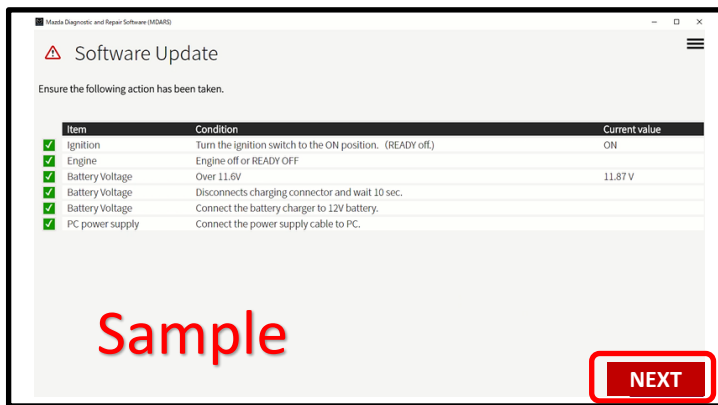
IMPORTANT NOTE:

- If the current calibration file name in the ECU FILENAME screen is the same as shown in Calibration Files Information or with a 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 of 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 on 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.

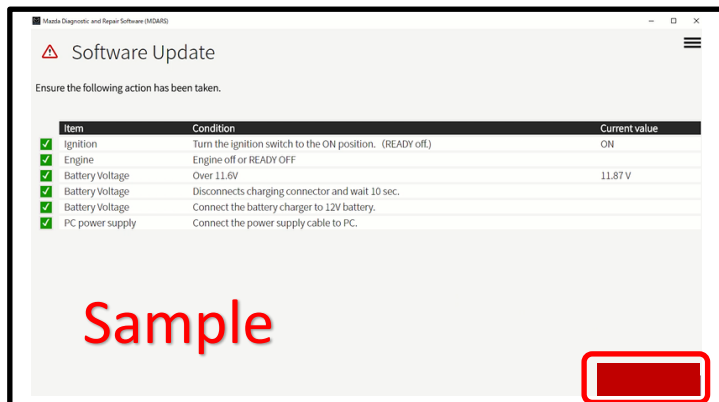


(3) During reprogramming, "Turn Ignition Switch to the OFF Position" may display on the MDARS several times. Turn the ignition switch OFF, check the box, and select "Next".

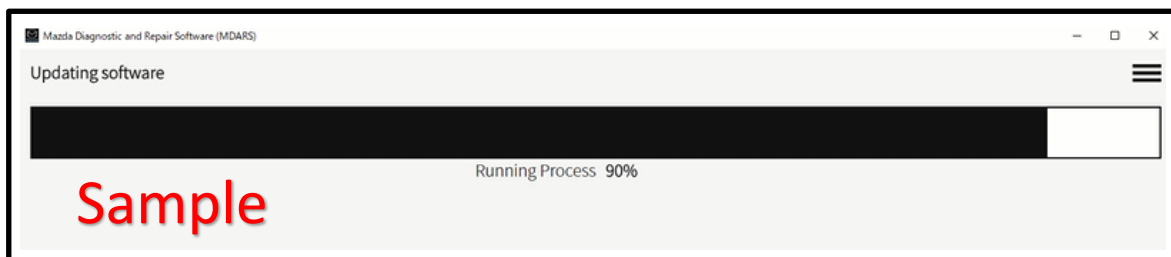


REPAIR PROCEDURE MAZDA SERVICE PROGRAM MSP63

- (4) MDARS may return to the 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'.

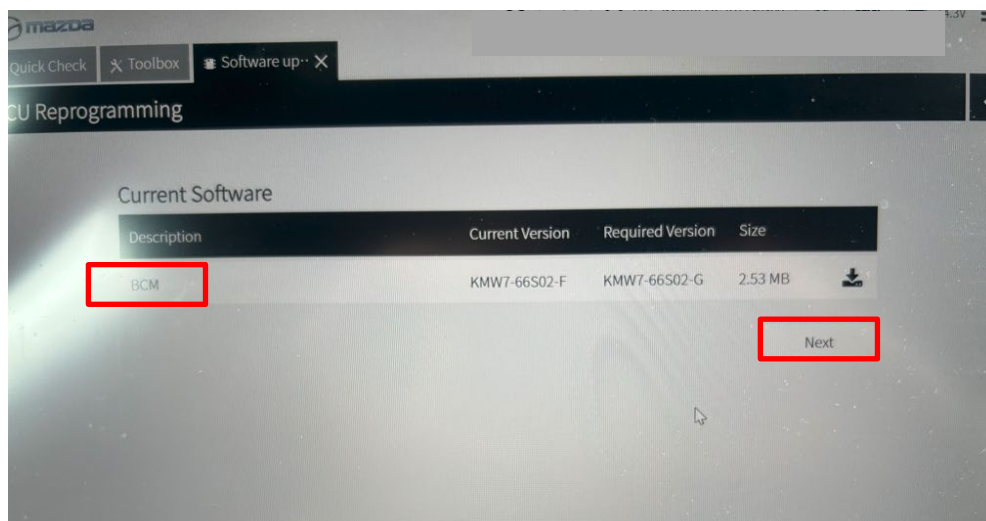


- (5) When the software is being updated and advances to 90% on the screen, it may stop working for about 60 seconds. Wait until reprogramming is complete.

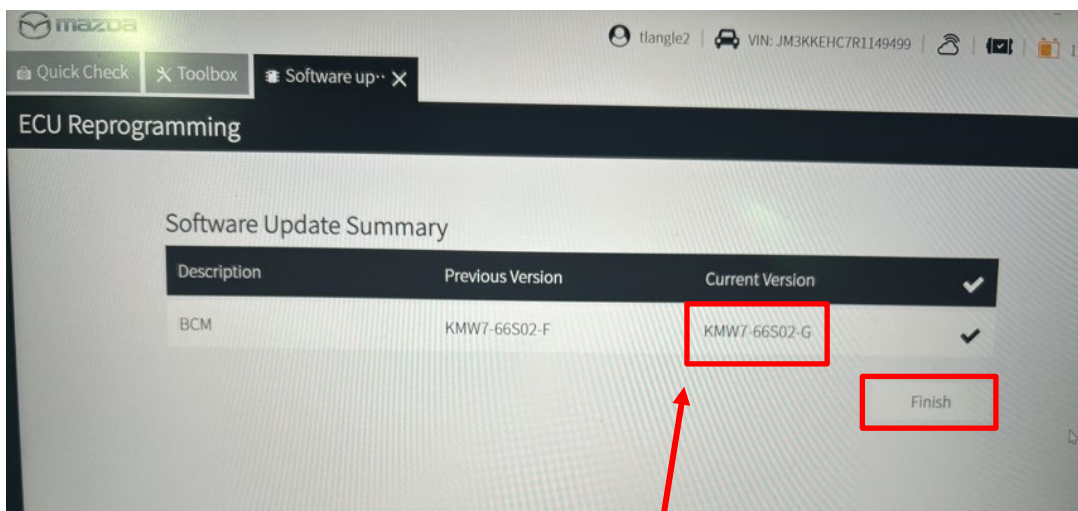
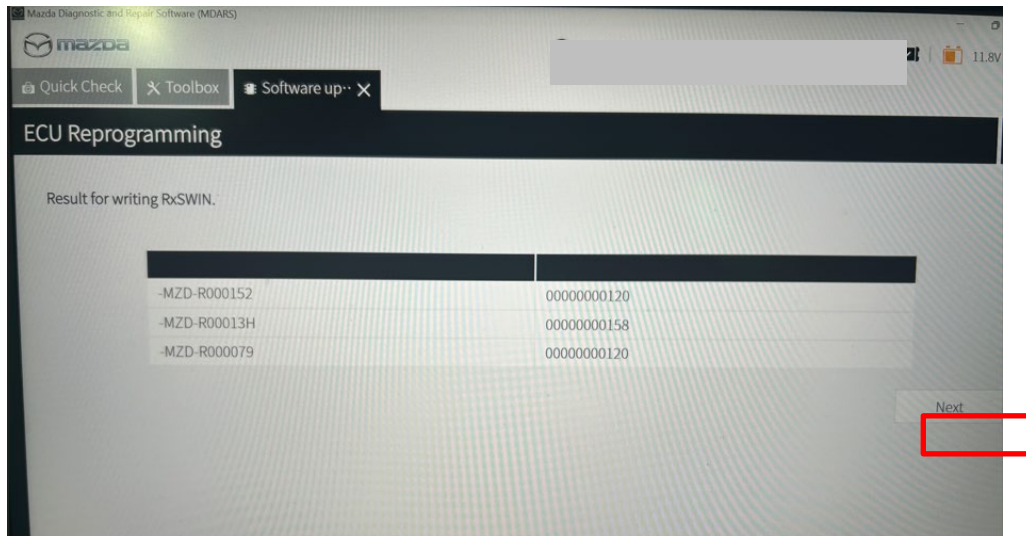


- (6) After completion of the software update, the previous and current software versions are shown.
- Check the current version with "Calibration File information below".
 - Then, click on "Finish" to exit the ECU reprogramming.

REPAIR PROCEDURE BCM REPROGRAMMING



**REPAIR PROCEDURE
MAZDA SERVICE PROGRAM MSP63**



Calibration file information

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

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Module to be reprogrammed automatically.
BCM	KR9P-67560-	KMW7-66S02-G	3	-

Check/Upload ODR Data



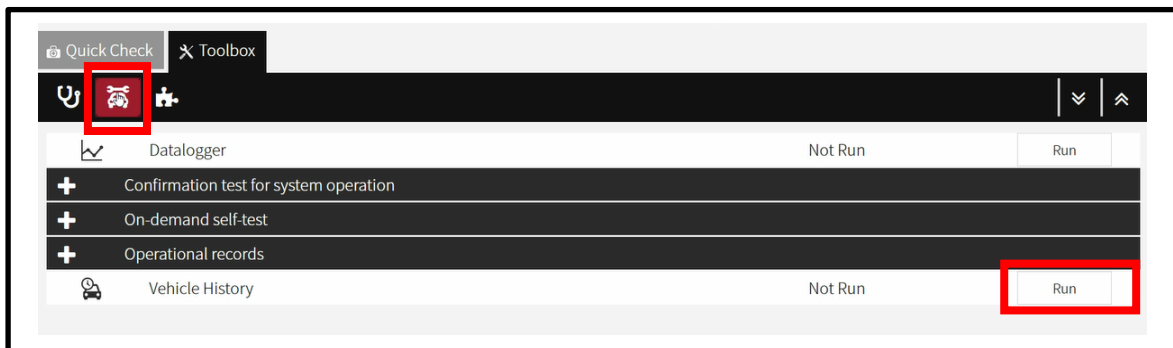
WARNING!

IF ALL REQUIRED MODULES ARE NOT UPDATED, THE WARRANTY CLAIM WILL NOT BE APPROVED AND YOU WILL NEED TO REPAIR THE VEHICLE AGAIN AT THE DEALER EXPENSE. PLEASE MAKE SURE ALL REQUIRED MODULES ARE UPDATED.

THE MANUAL ODR PROCESS IS ALSO REQUIRED. IF PROCESSES ARE SKIPPED, IT WILL RESULT IN CLAIM DENIAL, AN UNNECESSARY RE-REPAIR FOR THE CUSTOMER, CAMPAIGN REMAINING IN OPEN STATUS.

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

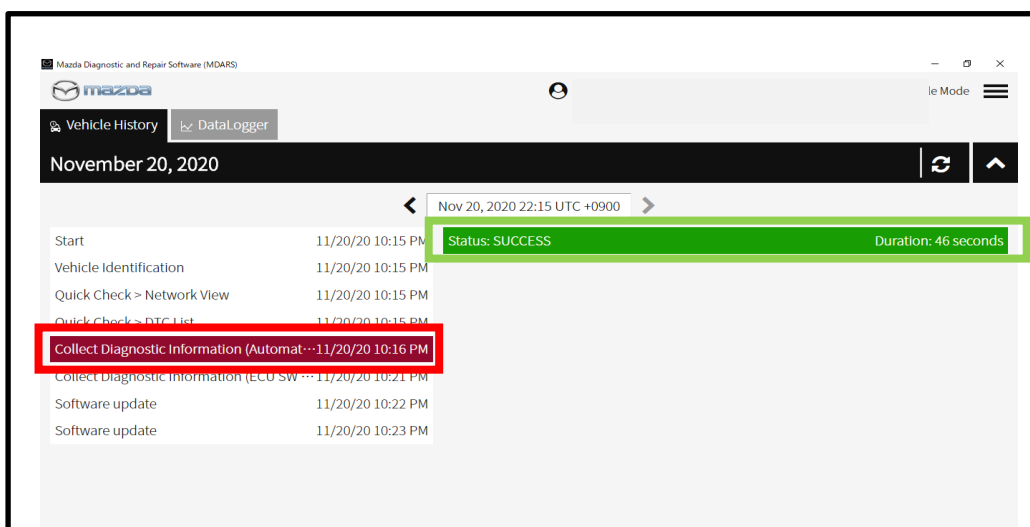
- (7) Open the vehicle history on toolbox tab.



- (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.

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



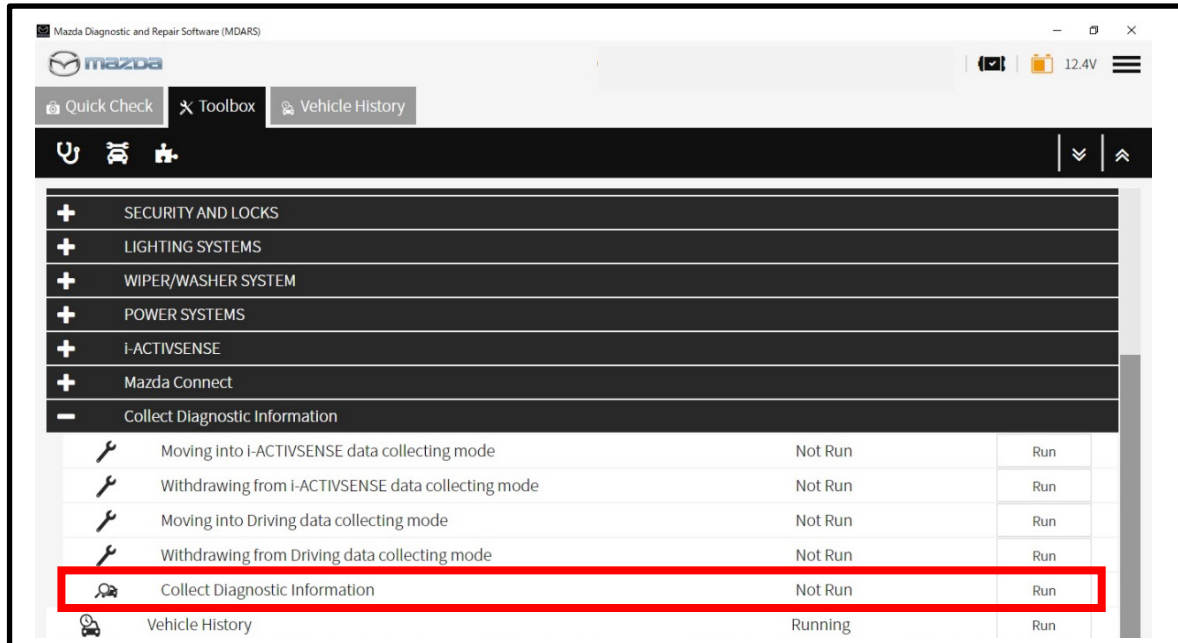
※If the status is 'FAILURE', the Collect Diagnostic Information (latest vehicle information) has not been submitted to the server.

Status: FAILURE

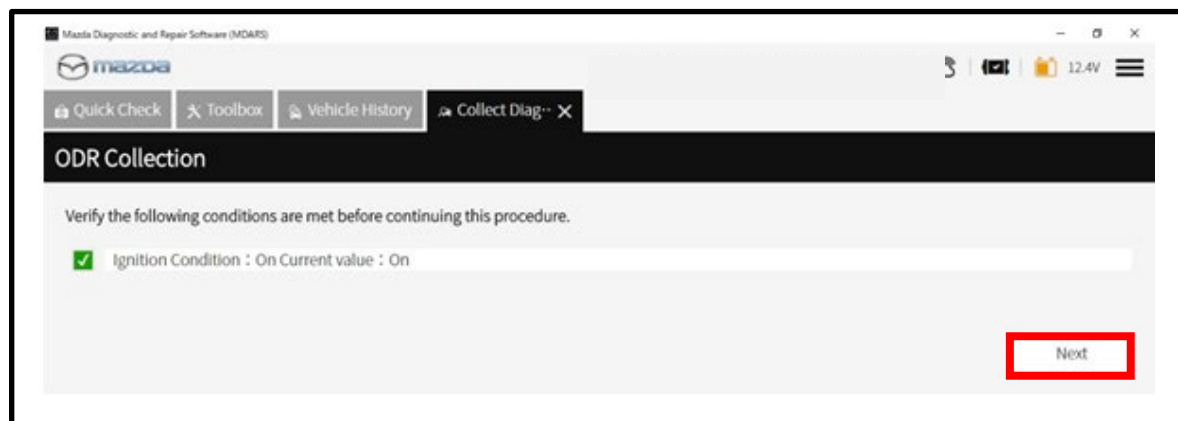
Duration: 1 seconds

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

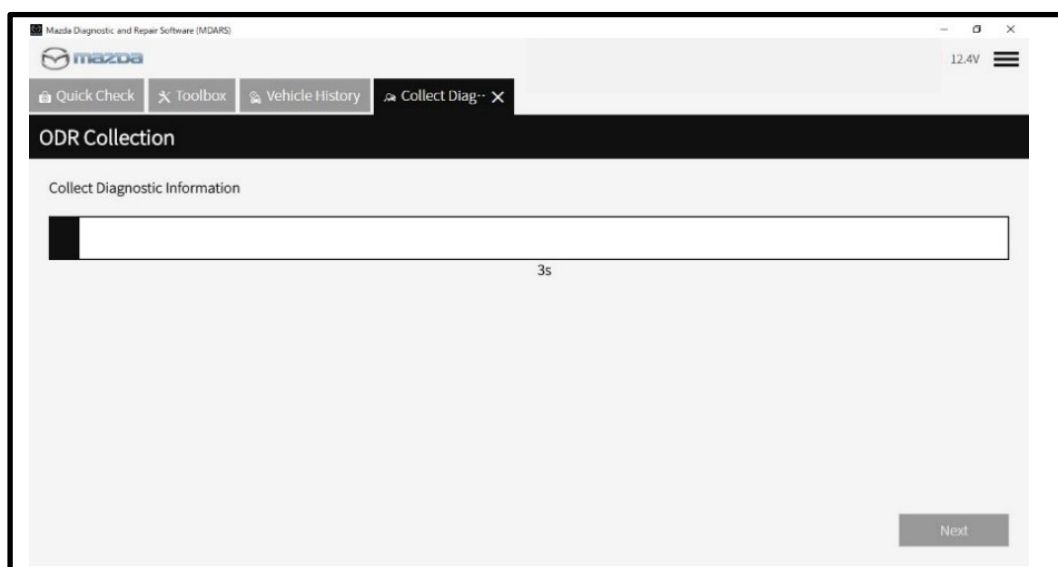
(1) At the toolbox tab, select "Collect Diagnostic information" then click 'Run'.



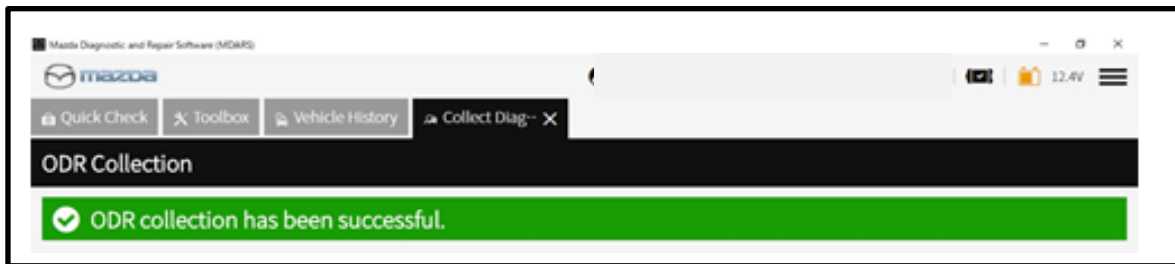
(2) Click 'Next'.



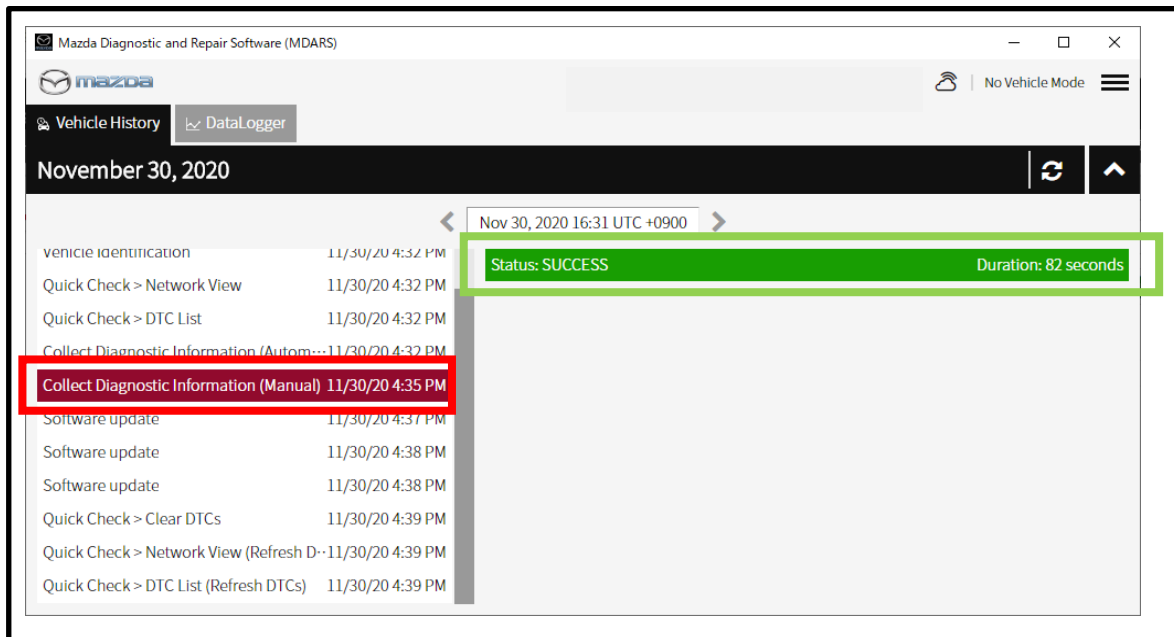
(3) It takes around 60 seconds.



(4) MDARS will Collect Diagnostic Information and send to the server.



(5) Go back to step 9 and 10 to confirm the 'Collect Diagnostic Information (Manual)' status shows "SUCCESS" on green.



(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.
(14) Proceed to C. Campaign Label Installation

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.

Driving position setting

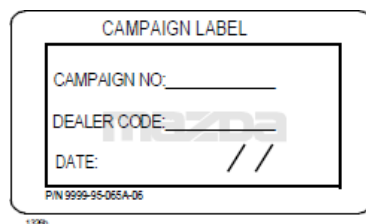
- Reprogramming the BCM will erase the Driving position memory and Driver personalization system registration data.
- Regarding the above, explain to the customer before reprogramming. And explain to the customer on how to re-register according to the procedures in the Owner's Manual.

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

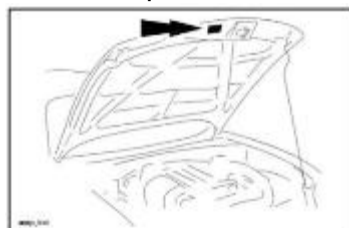
GO TO SECTION C. CAMPAIGN LABEL INSTALLATION

C. Campaign Label Installation

1. Fill out a Black "Campaign Label" (9999-95-055A-06) with Campaign #: "MSP63", 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.



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