## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 1 of 27

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ODR DATA UPLOAD (critical step for all campaigns)
FINAL CLEARING OF SLEEP MODE FOR RECALL 6223J AND DTCS

## A. VEHICLE INSPECTION PROCEDURE AND PREPARATION FOR REPAIR

1. Verify that the vehicle is within the following ranges and there is a Not Launched  $\underline{or}$  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 <u>does not</u> have an OPEN or Not Launched 6223J and/or 6323J campaign, return the vehicle to the customer or inventory.

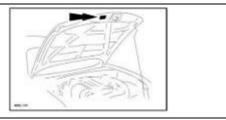


## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 2 of 27

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	Present	Fill out Dealer Recall Help on OneMazda contact or the Mazda Warranty Department at <u>warrantydept@mazdausa.com</u> to review vehicle history.	
on this vehicle	Not present	Proceed to "REPAIR PROCEDURE".	
If repair date is displayed for	Present	Return vehicle to inventory or customer.	
CAMPAIGN 6223J and/or 6323J or any of the SSP campaigns is "CLOSED"	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	The vehicle is not affected by the Recall or SSP	

Technician level required: Certified or above.

**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

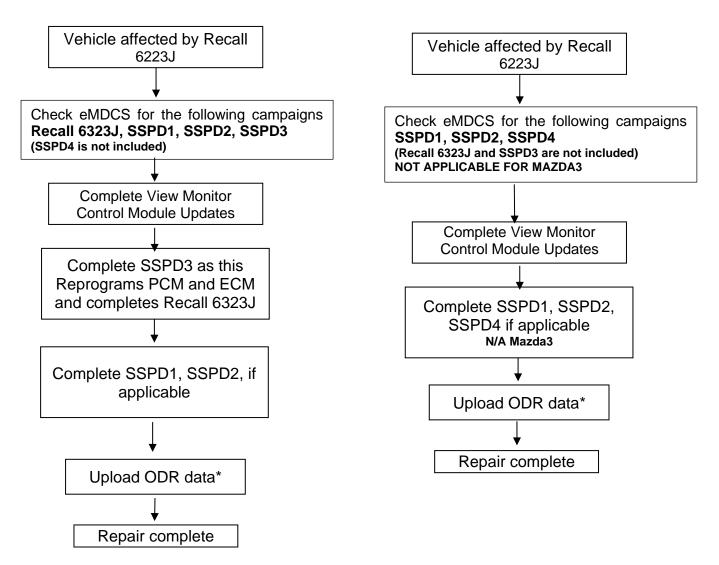
## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 3 of 27

## 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

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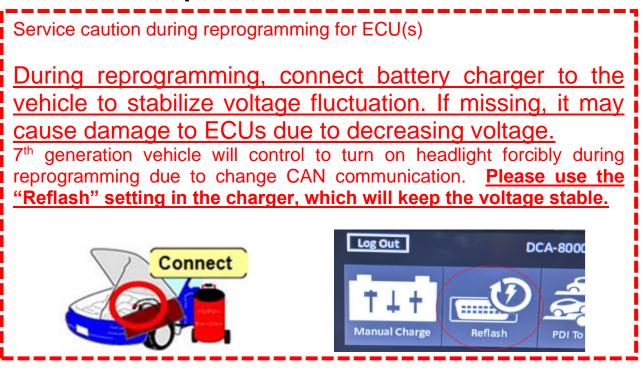


\*NOTE: <u>All vehicles require the upload of ODR after the technician has completed all</u> software updates. If ODR is not uploaded successfully, or if one or more software updates are missed, the applicable campaign(s) will remain open, the warranty claim will not accept, and your dealer will have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



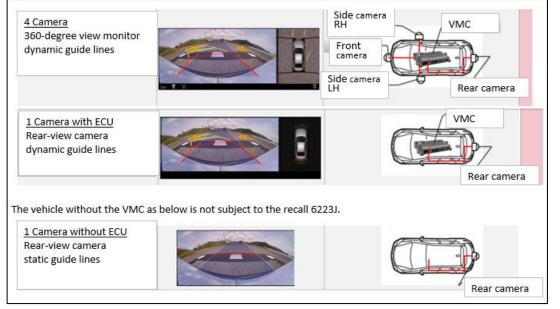
## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 4 of 27

## 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!

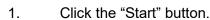


## Vehicle Identification

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

**CAUTION: DO NOT UDPATE 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.

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

Mazda Diagnostic and Repair Software (MDARS)	-	×
<u>0</u>		

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'.

😂 Mazd	da Diagnostic and Repair Software (MDARS)	- D >
$\Theta$	nazoa	🕑 m172110   🚔 VIN: JMZDMFW8A00100044   🖄   🕼
🙆 Quic	ck Check 🗙 Toolbox	
Сî	ă H	×   *
-	Software update	
	Software update	Not Run Run
+	Configuration	
+	ENGINE (SKYACTIV-D)	
+	ENGINE (SKYACTIV-X)	
+	BRAKES	
+	TRANSMISSION/TRANSAXLE	
+	RESTRAINTS	
+	SEATS	
+	SECURITY AND LOCKS	
+	LIGHTING SYSTEMS	Sample
+	WIPER/WASHER SYSTEM	

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.

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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 and disconnect the 12V battery charger.

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	🖯 mazoa		O cnicely	R VIN: JM3KKEHA	7R1100074   💍	(2)   🚞 1	4.6V
	👜 Quick Check	X Toolbox 🖀 Software up… 🗙					
	ECU Reprogra	amming					
		Current Software				_	
		Description	Current Version	Required Version	Size		
		VMC	KDNP-66UK2-D	KDNP-66UK2-E	8.39 MB	r"	
		VMC	KDNP-66UK3-A	KDNP-66UK3-B	-		
					Next		
	з		O cnicely	R VIN: JM3KKEH	C6R1100052   🕭	) <b>(E1)</b>	💼 12.9V
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CX-90 Shown



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 7 of 27

Quick Check      ECU Reprogr	★ Toolbox	<b>O</b> cnicely	/   🚗 VIN: JM3KKEHC6R1100052   🗷   💷   12.9V
	Software Update Summa	IFY Previous Version	Current Version
	VMC VMC	KDNP-66UK2-D KDNP-66UK3-A	KDNP-66UK2-E
🔂 mazoa 🖻 Quick Check	<ul> <li>★ Toolbox</li> <li>Software up… ×</li> </ul>		Finish

## 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.

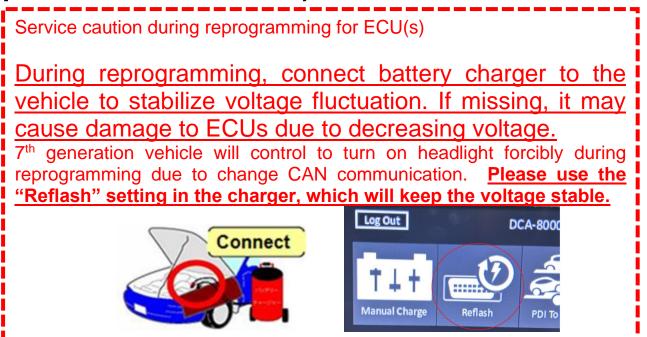
Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note	
	KDNP-66UU0	KDNP-66UK2-E		CX-90	
	KDNP-00000	KDNP-66UK3-B	- 16	4 Camera	
VMC	KEME-66UU0 BHSC-66UU0	KEME-66UK2-E		CX-90	
(View Monitor		KEME-66UK3-B		1 Camera	
Control		BHSC-66UK2-B		Mazda3	
Module)	впос-00000	BHSC-66UK3-B		4 Camera	
	BHSD-66UU0	BHSD-66UK2-B		Mazda3	
	60000	BHSD-66UK3-B		1 Camera	

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MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 8 of 27

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)



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-  ${\rm I\!I}$  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.

Mapda Diagnostic and Repair Software (MDARS)	- 0 X
Constrained and the second sec	Change VCI Select another VCI. You do not need to do this chem you use a winders VCI. Course Course Controlling Cont



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 9 of 27

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

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$\odot$	IBZDB		<b>O</b> m172110	R VIN: JMZDMFW8A001000	4   👌   🛙		=
👜 Quic	k Check X Toolbox						
Ŷ	ă #						*   *
-	Software update						
1	Software update			Not Run		Run	
+	Configuration						
+	ENGINE (SKYACTIV-D)						
+	ENGINE (SKYACTIV-X)						
+	BRAKES						
+	TRANSMISSION/TRANSAXLE		`				
+	RESTRAINTS						
+	SEATS	<u> </u>					
+	SECURITY AND LOCKS	5	am	one			
+	LIGHTING SYSTEMS						
+	WIPER/WASHER SYSTEM						

- 5. 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 Page 10 of 27

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 and disconnect the 12V battery charger.

💮 mazba		<b>O</b> cnicely	VIN: JM3KKEHA7	R1100074   🔊	💶   💼 14.6V
l Quick Check	★ Toolbox 🔹 Software up… 🗙			L L	/
ECU Reprog	ramming				
	Current Software				
	Description	Current Version	Required Version	Size	
	РСМ	MS06-186K2-L	MS06-186K2-N	1.17 MB	
	Dependent Software				
	ECM	PXRC-188K2-L	PXRC-188K2-N	1.05 MB	
				Next	
					_
Mmazoa		O cnicely	A VIN: JM3KKEHA7R1	1100074   🕭   🕊	<b>21</b>   🗰 14.4V
👜 Quick Check	🗙 Toolbox 🛛 🛢 Software up 🗙			U	
ECU Reprogra					
Eco neprogr	2				
Result for writin	g RxSWIN.				
	-MZD-R000152	0000000122			
	-MZD-R00013H	0000000160			
	-MZD-R000079	0000000122			
					Next
				•	
Mmazba		<b>O</b> cnicely	VIN: JM3KKEHA	7R1100074   💍	( <b>Z</b> )   <b>1</b> 4.4V
🖻 Quick Check	🗙 Toolbox 🛛 🖀 Software up… 🗙			-	
ECU Reprogr					
Leo Replogi	anning				
	Software Update Summa	-			
	Description	Previous Version	Current Version		
	PCM	MS06-186K2-L	MS06-186K2-N		<ul> <li>Image: A set of the set of the</li></ul>
	ECM	PXRC-188K2-L	PXRC-188K2-N		<ul> <li>Image: A second s</li></ul>
				Finish	

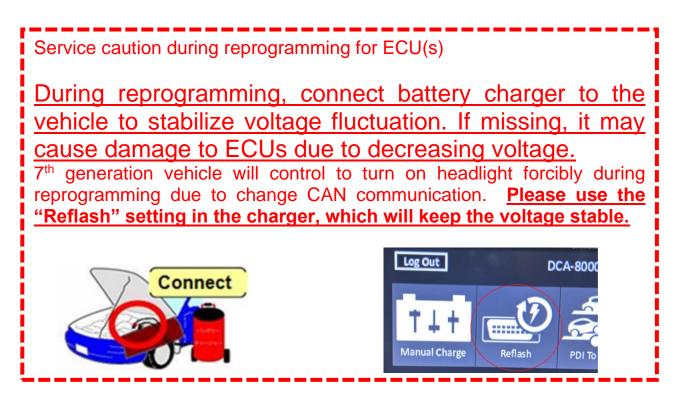
#### Calibration file information

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.

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

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 11 of 27

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



### 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.

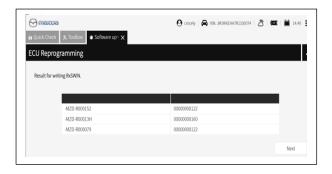
1. Click the "Start" button.

Change VCI Select another VCI. You do not need to do this unless you use a wireless VCI.
Change Continue Offline Use button to continue without a network convection. Nex will be netristed in which you can da, depending on the data that has been prepared. United to the second second second second second Start with no connected vehicle. Use button to continue without connecting to a which it was the predicted in what you can do.

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

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 12 of 27

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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'.

Mazd	da Diagnostic and Repair Software (MDARS)	~ – – ×
$\odot$	16ZDa	🚱 m172110   🔗 VIN: JMZDMFW8A00100044   🗟   🖽   🔤
👜 Quic	k Check X Toolbox	
S	ž tr	×   ∧
-	Software update	
1	Software update	Not Run
+	Configuration	
) 🕂	ENGINE (SKYACTIV-D)	
+	ENGINE (SKYACTIV-X)	
+	BRAKES	
+	TRANSMISSION/TRANSAXLE	
+	RESTRAINTS	
+	SEATS	
+	SECURITY AND LOCKS	
+	LIGHTING SYSTEMS	
+	WIPER/WASHER SYSTEM	

5. 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.



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 13 of 27

💮 mazba		O cnicely	🖨 VIN: ЈМЗККЕНС	6R1100052   💍	(121)	12	2.9V
🖻 Quick Check	X Toolbox 🔹 Software up… 🗙						
ECU Reprogra	amming						
	Current Software				_		
	Description	Current Version	Required Version	Size			
	РСМ	H302-188K2-K	H302-188K2-L	1.67 MB	Ł		
				Next			
					_		
💮 mazda		O cnicely	🖨 VIN: ЈМЗККЕНС	6R1100052   💍	(12);	13	3.1V
la Quick Check	ℜ Toolbox 🔹 Software up 🗙						
ECU Reprogr	amming						
	Software Update Summa	ry					
	Description	Previous Version	Current Version		✓		
	PCM	H302-188K2-K	H302-188K2-L		~		
				Finish			

## Calibration file information

NOTE: - If software is already the latest version (suffix), MDARS will not reprogram the subject

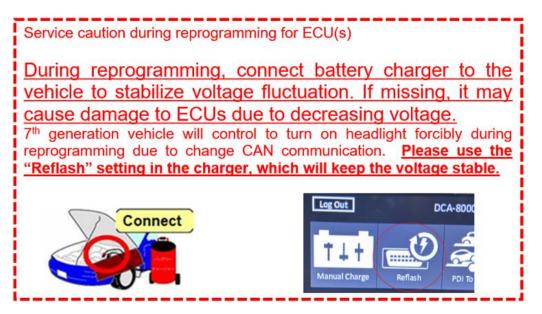
E <u>CU.</u>	I his i	<u>s normal,</u>	, please	proceed to	the next s	tep.

Module	Target ECU (Hardware #)	Target Software file #	Reprogramming Time (min.)	Note
5014		H301-188K2-L H302-188K2-L 7		H3T MHEV AWD LO
PCM	H301-18881			H3T MHEV AWD HI



MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 14 of 27

## Section B : Repair Procedure SSPD1 (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.

#### **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.

Mapta Diagnostic and Repair Software (MDARS)	- 0 ×
Sample	Change VCI
Vehicle Identification	Select another VCI. You do not need to do this unless you use a wireless VCI.
Identify a whiche using current VCL	Change
Surt	Continue Offline
Micro-misi whicle, FAMILIA VAN (VY), TITAN	Use button to continue without a network connection. You will be matricited on what you can do, depending on the data that has been prepared.
Start	Office Mode
	Start with no connected vehicle
	Use button to continue without connecting to a wehicle. You will be restricted in what you can do.

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 15 of 27

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

	- ¤ >
2	

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

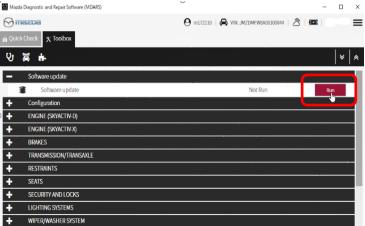


**NOTE:** This campaign will not repair existing DTC(s).

- If any of the following DTC's are stored, clear the DTC(s).
  - <u>U3000:01-0B:FSRR</u> Front side radar sensor (RH) internal malfunction.
  - <u>U3000:01-0B: RSRL</u> Rear side radar sensor (LH) internal malfunction
  - <u>B14F1:04 [VMC]</u> Front side radar sensor (LH)/(RH) internal malfunction or poor installation
  - <u>B1542:00</u>-0B:VMC Rear side radar sensor related malfunction
  - <u>B14F2:04</u>-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.
- 4. Reprogram Side Radar as below. If there is 'Software update' on 'Toolbox' tab. Select 'Run'.





## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 16 of 27

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

nick Check 🗶 Toolbox 🔹 Software up. 🗙	O cnice	ely   🖨 VIN: JM3KKEH	HC6R1100052   💍
U Reprogramming			
Current Software			
Description	Current Version	Required Version	Size
FSRL	KR9P-67YK2-J	KR9P-67YK2-L	702.18 KB 🛃
Dependent Software			
FSRR	KR9P-67YK2-J	KR9P-67YK2-L	702.18 КВ 🛃
RSRL	KR9P-67YK2-J	KR9P-67YK2-L	702.18 КВ 🛃
RSRR	KR9P-67YK2-J	KR9P-67YK2-L	702.18 КВ 🛃
			Next

Side Radar Sensor ECU Programming	Applicable Vehicle	Not Applicable
NOTE: Not all trims have Front Side Radar • FSRR (Front Side Radar Right) • FSRL (Front Side Radar Left)	Standard PT • 3.3 Turbo Premium Plus High PT • 3.3 Turbo S Premium • 3.3 Turbo S Premium Plus PHEV • PHEV Premium Plus	Standard PT • 3.3 Turbo Select • 3.3 Turbo Preferred • 3.3 Turbo Preferred Plus • 3.3 Turbo Premium High PT • 3.3 Turbo S PHEV • PHEV Preferred • PHEV Premium
<ul> <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.

 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.



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sult for writing RxS	WIN.				
	0-R000152	000000			
	D-R00013H	000000			
-MZD	D-R000079	000000	00120		
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	Da	are up X	9 cnicely   🖨 VIN: JM3KKEHC6R	1100052   👌   🕼	- c
Quick Che	ck 🗶 Toolbox 🔹 Softw		9 cnicely   🖨 VIN: JM3KKEHC6R	1100052   👌   🕼	- c
	Da		9 cnicely   🖨 VIN: JM3KKEHCGR	1100052   💍   (2);	- d   🖬 13.1V
	rogramming	are up•• X	9 cniceły   🖨 VIN: JM3KKEHC6R	1100052   👌   🕼	- o
	ck 🗶 Toolbox 🔹 Softw	are up•• X	9 cnicely   🔗 VIN: JM3KKEHC6R	1100052   👌   🗐	- d 13.1V
	ck X Toolbox Software Update	are up X e Summary		1100052   🗟   ( <b>11</b> ) •	- d
	ck X Toolbox Software rogramming Software Update Description	are up X e Summary Previous Version	Current Yession	1100052   &   ( <b>12</b> )	- o
	Colored Colore	e Summary Previous Version KR9P-67YK2-J	<del>Санскі Version</del> KR9P-67YK2-L		- d 13.1V

#### **Calibration file information**

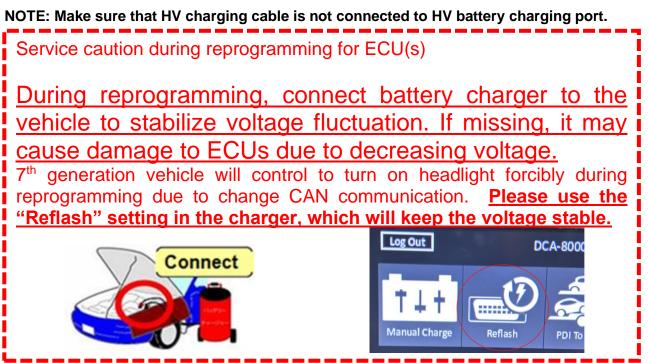
NOTE: - software is already the latest version (suffix), MDARS will not reprogram the subject ECU. This is normal, please proceed to the next step.

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



MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 18 of 27

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



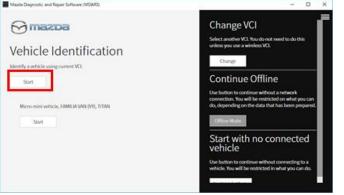
### **Vehicle Identification**

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 Page 19 of 27

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

en Ouick Check	🗴 🗶 Toolbox 🔹 Software up 🗙	🕒 cnicely   🚔 VIN: JM3KKEHA7R1100	_
ECU Repro	ogramming		
Result for w	riting RxSWIN.		
Result for w	riting RxSWIN.		
Result for w	riting RoSWIN.		
Result for w			
Result for w	-MZD-R000152	0000000122	
Result for w		0000000122 0000000160	
Result for w	-MZD-R000152		

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 TCM as below

There is 'Software update' on 'Toolbox' tab. Select 'Run'.

Mazda	a Diagnostic and Repair Software (MDARS)	<u> </u>		- 🗆 ×
Øm	ezpa			
👜 Quick	Check X Toolbox			
Сî	ă #-			×   ×
-	Software update			
1	Software update		Not Run	Run
+	Configuration			
> +	ENGINE (SKYACTIV-D)			
+	ENGINE (SKYACTIV-X)			
+	BRAKES			
+	TRANSMISSION/TRANSAXLE			
+	RESTRAINTS	-Sample		
+	SEATS	<del>oanipic</del>		
+	SECURITY AND LOCKS			
+	LIGHTING SYSTEMS			
+	WIPER/WASHER SYSTEM			

5. 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.

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 and disconnect the 12V battery charger.



#### MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 20 of 27

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Quick Check	🗙 Toolbox 🛛 🖀 Software up	·· ×			•	
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	Current Software					
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CX-9	90 Turbo	Showr	ו			-
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	Software Update Su	Previous Version			✓ ✓ Finish	

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 21 of 27

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
		H327-21PS1-J		H3T MHEV AWD LO
тсм	RZ01-219E1	H328-21PS1-J	35m H3T MHEV	H3T MHEV AWD HI
		PXPN-21PS1-G	27m PHEV	PHEV AWD

## 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.
  - ii) Press the [Toolbox] tab.
  - iii) Press the [Work Support] icon.



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 22 of 27

- 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.

#### PROCEED TO ODR COLLECTION

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 <u>PUSH</u>

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 23 of 27

azda

## **Upload ODR Data**

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

7. Open the vehicle history on toolbox tab.

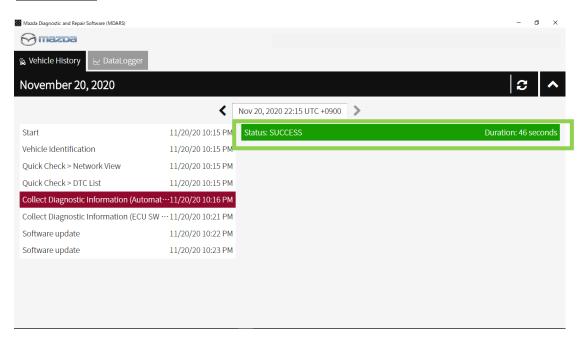
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k	Datalogger	Not Run	Run
+	Confirmation test for system operation		
+	On-demand self-test		
+	Operational records	_	
S.	Vehicle History	Not Run	Run

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

#### NOTE:

Verify the "Collect Diagnostic Information" <u>after all required modules are updated</u>. Not necessary to confirm the 'Collect Diagnostic Information' after required module reprogram <u>every time</u>.

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



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



## Status: FAILURE



#### MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 24 of 27

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

Mazda Diagnostic	and Repair Software (MDARS)		- 0
) maz	Da la		
Quick Che	eck 🗙 Toolbox 🔉 Vehicle History		
<u>ය</u> අ	<u></u>		×
🕂 s	SECURITY AND LOCKS		
<b>+</b> ι	IGHTING SYSTEMS		
+ v	VIPER/WASHER SYSTEM		
🕈 P	POWER SYSTEMS		
+ i-	ACTIVSENSE		
<b>+</b> №	lazda Connect		
<b>—</b> c	Collect Diagnostic Information		
۴	Moving into i-ACTIVSENSE data collecting mode	Not Run	Run
4	Withdrawing from i-ACTIVSENSE data collecting mode	Not Run	Run
4	Moving into Driving data collecting mode	Not Run	Run
4	Withdrawing from Driving data collecting mode	Not Run	Run
Q	Collect Diagnostic Information	Not Run	Run
2	Vehicle History	Running	Run

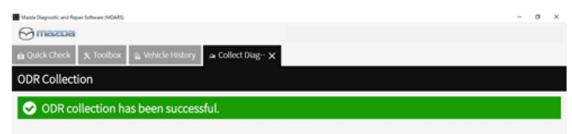
## (2)Click 'Next'

Mazda Diagnostic and Repair Software (MDARS)	-	σ	×
⊖ mazoa			
👜 Quick Check 🗙 Toolbox 👒 Vehicle History 🔉 Collect Dlag 🗙			
ODR Collection			
Verify the following conditions are met before continuing this procedure.			
verify the following containents are thet before containing this procedure.			
Ignition Condition : On Current value : On			

(3) It may take around 60 seconds.

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3 mazoa		<b>O</b> m172110	VIN: JMZDMFWG600200003	2 4	🖬 📋 12.4V
Quick Check 🗙 Toolbox 🛸 Vehicle Hist	ory 🔉 🔉 Collect Diag - 🗙				
DR Collection					
Collect Diagnostic Information					
Sheet Diagnostic mormation					
		3s			
					Next

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



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULEREPROGRAMMINGPage 25 of 27

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

Mazda Diagnostic and Repair Software	(MDARS)			
🖯 mazoa		<b>O</b> m172110	🖨 VIN: JMZDMFWG600200003   🖄   No Vehicle Mode	e
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November 30, 2020			2	^
	<	Nov 30, 2020 16:31 UTC +0900	>	
venicle identification	11/30/20 4:32 PM	Status: SUCCESS	Duration: 82 se	conds
Quick Check > Network View	11/30/20 4:32 PM	54445.500000		condo
Quick Check > DTC List	11/30/20 4:32 PM			
Collect Diagnostic Information (Au	itom…11/30/20 4:32 PM			
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Software update	11/30/20 4:37 PM			
Software update	11/30/20 4:38 PM			
Software update	11/30/20 4:38 PM			
Quick Check > Clear DTCs	11/30/20 4:39 PM			
Quick Check > Network View (Refr	esh D…11/30/20 4:39 PM			
Quick Check > DTC List (Refresh D	TCs) 11/30/20 4:39 PM			

### 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.

## **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)

## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 26 of 27

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.

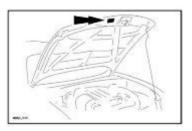
- 11. If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate troubleshooting section of the Workshop Manual.
- 12. Disconnect the MDARS from the DLC-2.
- 13. Move to Section C. Campaign Label(s) installation. You must install a label for all campaigns or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

## 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.

CAMPAIGN NO;		
DEALER CODE;		
DATE:	11	

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:



## MULTIPLE CAMPAIGNS REPAIR PROCEDURE AND MULTIPLE MODULE REPROGRAMMING Page 27 of 27

## End of Repair Procedure.