Mazda North American Operations Irvine, CA 92618-2922



Subject:

BODY CONTROL MODULE (BCM) RECOVERY PROCEDURE

Service Alert No.: SA-059/20

Last Issued: 09/01/2020

# **BULLETIN NOTES**

This service alert supersedes the previously issued service alert listed below. The changes are noted in Red text.

Previous Service Alert:	Date(s) Issued:
SA-059/20	08/17/20 and 08/03/20
SA-039/19	12/5/19, 11/29/19 and 08/23/19

## **APPLICABLE MODEL(S)/VINS**

2019-2021 Mazda3 2020-2021 CX-30

# DESCRIPTION

During BCM replacement, MDARS may display a Configuration Error warning message. This may be caused by any of the following:

- Poor internet connection
- MDARS failure
- Low Battery

Perform the BCM Recovery Procedure below to manually configure the BCM.

Page 1 of 9

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# **REPAIR PROCEDURE**

### **BCM Recovery**

**NOTE:** The odometer may be reset when the BCM is replaced and configuration is done by using AS BUILT data (Factory Reset) if the original BCM is out of order and unable to identify the vehicle using M-MDS. If the odometer is reset when replacing the BCM, install a speedometer replacement label (Mazda e-Store P/N 9999-95-SPDO-97) on the driver's door frame edge. Make sure to take the required action to keep the odometer record as suggested or designated by the state (similar to the instrument cluster replacement).

METER REPLA	CEMENT
(Before Repla	scement)
/	/
	(Before Reple

### Index

- BCM Manual Configuration
- Alternative procedure to open the MDARS session
- BCM Configuration is unsuccessful

### Preparation

- Keep a battery charger connected to the vehicles battery at all times, even if the battery is fully charged, except if the negative terminal is disconnected.
  - Go toSA-063/20GR8 MANUAL MODE FOR MAINTAINING BATTERY VOLTAGE DURING VEHICLE SERVICE
- Switch the following OFF:
  - Headlamps
  - Climate Control
  - Wipers/Washers
  - Interior illumination
- Open the front doors on both sides and the trunk lid (4SD) or liftgate (5HB), and keep them open during the entire process.
- If MDARS causes any error, repeat the same step again from the point before the error happened.

#### Page **2** of **9**

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### **BCM Manual Configuration**

1. For the preparation of manual entry mode, check the PCM software file name on the label of the actual PCM. Sample photos belows show "PX06-188K2-H" / "PYFC-188K2-J" as the PCM software file names. (It is not recommended, but you can also open the MDARS session as mentioned at the end of this document.)

**NOTE:**The smaller sticker on the PCM is the PCM File name, which is the number to enter. When entering the PCM software number on MDARS, the dashes "-" are mandatory and have to be enteredand the file name must be in Upper Case.



2. Launch MDARS by selecting "Start". If a connection is not possible after two tries due to IG OFF, MDARS starts the manual entry mode(forced ignition ON). Enter the VIN and the PCM software number.

Mimazoa	Echange VCI
Vehicle Identification	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 connection. You will be restricted on what you can do, depending on the data that has been prepared. Offline Made
	Start with no connected vehicle
	Use button to continue without connecting to a whicle, You will be restricted in what you can do. No Vehicle Mode

#### Page **3** of **9**

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3. Perform the BCM configuration using MDARS and follow the description on the screen (to read out the BCM data before removing the BCM).

🖨 Quic	k Check 🗙 Toolbox		
S	ž h		×   ×
+	Software update		
-	Configuration		
	Configuration	Not Run	Run
+	ENGINE		
+	BRAKES		
	TOANSNISSION/TDANSAYLE		

**IMPORTANT:** When the ignition is switched ON during configuration, note the actual vehicle mileage.

4. Replace the BCM according to the instructions on MGSS (BODY CONTROL MODULE (BCM) REMOVAL/INSTALLATION) NOTE:

- In the case of "no IG-ON issue", the ignition can't be turned off using the Engine Start Button. Disconnect the battery charger and disconnect the battery negative cable.
  - The battery needs to be disconnected before installing the new BCM, otherwise errors may occur during the configuration.
- 5. Confirm the wipers are turned OFF.

6. Continue the configuration with IG-OFF since the ignition can't be turned on using the Engine Start Button at this point. Follow the procedure described on the MDARS screen where it includes Special Ignition ON.

ECU Replacement	^
Install the new ECU You can now replace the ECU. Press Continue to write the stored configuration to the new ECU.	
Continue	

#### Page 4 of 9

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Service Alert No.: SA-059/20	Last Issued: 09/01/2020

7. Perform the [Replacing Immobilizer related module] programming using MDARS.

Quick	Chec	X Toolbox		
S	ă	÷		*   *
+	EN	SINE		
+	BR	KES		
+	TR	INSMISSION/TRANSAXLE		
+	RES	STRAINTS		
+	SE/	ITS		
-	SEC	CURITY AND LOCKS		
-	l	MMOBILIZER		
	۶	Activating extra Advanced Key	Not Run	Run
	1	Deactivating and activating Advanced Key	Not Run	Run
	۶	Replacing Immobilizer related module	Not Run	Run
/	۶	Registration for Remote Engine Starter(RES)	Not Run	Run
	£	Kowless excemsive prevention of radio interference	Not Dun	Due

Tip on immobilizer system-related part programming

⊕ Quick Check 🗙 Toolbox 🗡 Replacing I… 🗙	
Replacing Immobilizer related module	VIN
You will be required to access the manufacturer's website to obtain an incode for u BCKA-67560- Authentification Number 6078 Outcode - CBCM 02890910878 Part No. Serial No. Outcode	se on the following screen. VIN: JMZBP6HE601105404 Part Number: 878EDF rror Control (AAECS) Error Control



#### Page 5 of 9

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Service Alert No.: SA-059/20	Last Issued: 09/01/2020

8. Run the [Erase Driving Position] function using MDARS (if the vehicle is equipped with the seat position memory).

V       Not Run         *       Configuration         *       ENGINE         *       BRAKES         *       BRAKES         *       TRANSMISSION/TRANSAXLE         *       RESTRAINTS         -       SEATS         V       Erase Driving Position         Not Run       Run			iick	a Qui		
+       Configuration         +       ENGINE         +       BRAKES         +       TRANSMISSION/TRANSAXLE         +       RESTRAINTS         -       SEATS         /*       Erase Driving Position         Not Run       Run	*   *	*		S		
ENGINE     ENGINE     BRAKES     TRANSMISSION/TRANSAXLE     RESTRAINTS     SEATS     Erase Driving Position     Not Run     Not Run     Not Run				+		
+       BRAKES         +       TRANSMISSION/TRANSAXLE         +       RESTRAINTS         -       SEATS         /*       Erase Driving Position         Not Run       Run				+		
+       TRANSMISSION/TRANSAXLE         +       RESTRAINTS         -       SEATS         /*       Erase Driving Position         Not Run       Run		BRAKES				
+ RESTRAINTS - SEATS F Erase Driving Position Not Run Run				+		
SEATS     Erase Driving Position     Not Run     Not Run				+		
Frase Driving Position         Not Run         Run				-		
6 January Data Data Street		Run	1	1.		
Learning Driving Position Not Run Run		Run	1			

9. Perform the [Learning Driving Position] using MDARS (if the vehicle is equipped with the seat position memory system).

é Quid	ck Check 🗙 Toolbox		
Ŷ	ä +		*
+	Configuration		
+	ENGINE		
+	BRAKES		
+	TRANSMISSION/TRANSAXLE		
+	RESTRAINTS		
-	SEATS		
	F Erase Driving Position	Finished Jun 18, 2019 4:51:10 PM	Run
	Learning Driving Position	Not Run	Run
+	SECURITY AND LOCKS		
	LIGHTING SYSTEMS		

10. Perform the synchronization of the electrical supply unit (ESU) and the door-electrical supply unit using the following procedure.

a. Open the front doors on both sides and the trunk lid (4SD) or liftgate (5HB) if not already done.

- b. Wait for at lease one minute.
- c. Switch the ignition ON and wait for at least one second.
- d. Switch the ignition OFF.

Page 6 of 9

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Service Alert No.: SA-059/20	Last Issued: 09/01/2020

11. Perform the [Calibrating Yaw Rate for VCM] using MDARS.

nazi	oa	0	VIN: JM18PBMM7L	👌   🖾   🗰 13.6
ck Che	ck X Toolbox			
ĬŒ	÷.			*
E	NOTIVE (SKT/VCTIV-D)			
El	NGINE (SKYACTIV-X)			
BI	RAKES			
٢	Cariblating Lateral G Sensor for DSC		Not Run	Run
۶	Cariblating Longitudinal G Sensor for DSC		Not Run	Run
1	Cariblating Pressure Sensor for DSC		Not Run	Run
1	Cariblating Yaw Rate for DSC		Not Run	Run
1	Calibrating Yaw Rate for VCM		Not Run	Ban
٢	Self-Diagnosing Brake Line		Not Run	Run
1	Replacing Brake Fluid		Not Run	Run
TI	RANSMISSION/TRANSAXLE			
R	STRAINTS			
SE	ATS			

12. Perform the FSC aiming when DTC for FSC is stored (e.g. B14F0:04-VCM, B14F0:76-VCM, B14F0:87-VCM, B14F0:92-VCM etc.). Either dynamic aiming or static aiming is available using MDARS. Check MGSS for aiming condition and procedure.

13. If "Factory" is displayed in the TFT display of the instrument cluster:



a. Switch the ignition OFF and remove Fuse F27 (Room Fuse) in Relay Fuse Block.

b. Start the Engine, then turn the engine OFF.

c. Install Fuse F27.

d. Start the engine, then turn the engine OFF.

e. Confirm that "Factory" indication is not displayed.

14. If the Wrench indicator is on:



Perform "Oil Maintenance reset" in the Mazda Connect Menu.

15. Read out any DTC's and clear them.

Page **7** of **9** 

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Service Alert No.: SA-059/20	Last Issued: 09/01/2020

### Alternative procedure to open the MDARS session

1. Connect the VCM-II to a similar Mazda3 (BP) and start the MDARS session.

mazoa				0	A VIN: JMZBP	8	(C) 🖬 1434
Jick Check	K Toolbox						
m							8
DLC							
		BCM				VCM	
ALTUNISAU	MO	86	° ONU T	DASH_ESU	n. –	152	154
DCDC	0000,150,0	0000,000,9	050	05	1588	DMC	PSM
HED	1. S	ccu	LOIL	LONE	KR.	ISIN.	WC
	POH -	- Real	150				

- 2. Disconnect the VCM-II from the donor vehicle and connect it to the concerned vehicle with IG OFF.
- 3. Click on "Run" at "Special Ignition ON" and follow the procedure on the screen.

৬	Z +		¥
+	Configuration		
÷	ENGINE		
÷	BRAKES		-
÷	TRANSMISSION/TRANSAXLE		
÷	RESTRAINTS		
÷	SEATS		
÷	SECURITY AND LOCKS		
÷	LIGHTING SYSTEMS		
÷	WIPER/WASHER SYSTEM		
-	POWER SYSTEMS		
	Special Ignition ON	Not Run	Run
÷	FACTIVSENSE		
1			

#### Page **8** of **9**

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4. Keep the ignition ON and close MDARS by pressing



5. Restart MDARS and click on "Start".



6. Verify the VIN is correct.



## **BCM Configuration is unsuccessful**

1.Contact Hotline for latest repair information.

#### Page 9 of 9

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