

November 15, 2023

HV BATTERY DTCS STORED IN THE BMS

NTB23-075

APPLIED VEHICLES:2023 ARIYA (FE0)**APPLIED DATES:**Built on or before January 20, 2023

IF YOU CONFIRM

EL23-016

One or more of the following DTCs are stored in the **HV BATTERY** or **High Voltage Battery 2** in the BMS (Battery Management System):

 DTC P1B01-62 for "Cell voltage circuit" is stored as PAST and does return as CURRENT when erased,

OR

• DTCs P1B30-11, P1B39-11, P1B3A-11, P1B3B-11, P1B31-11 to P1B36-11; all for "Module temperature sensor",

AND/OR

 DTCs P1B60-12, P1B69-12, P1B6A-12, P1B6B-12, P1B61-12 to P1B68-12; all for "Cell voltage circuit".

ACTION

Follow the **SERVICE PROCEDURE** in this bulletin to reprogram the **HV BATTERY and HIGH VOLTAGE BATTERY 2**.

IMPORTANT: The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire **SERVICE PROCEDURE** as it contains information that is essential to successfully completing this repair.

Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Reprogram the HV BATTERY and HIGH VOLTAGE BATTERY 2

IMPORTANT: Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.
- All CONSULT-4 software updates (if any) have been installed.
- Connect the CONSULT PC to the Internet via Wi-Fi.

HINT: If Wi-Fi connection is not sufficient or is unstable, data may not download correctly during the reprogramming procedure.

NOTICE

- Connect a battery maintainer or smart charger set to reflash mode or a similar setting. If the vehicle battery voltage drops below <u>12.0V or rises above 15.5V</u> during reprogramming, <u>the BMS may be damaged</u>.
- Be sure to turn OFF all vehicle electrical loads (e.g. A/C, headlamps, audio). If a vehicle electrical load remains ON, <u>the BMS may be damaged</u>.
- Be sure to connect the AC Adapter.
 If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and <u>the BMS may be damaged</u>.
- Turn OFF all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within
 range of the CONSULT PC and the VI. If Bluetooth[®] signal waves are within range
 of the CONSULT PC or VI during reprogramming, reprogramming may be
 interrupted and <u>the BMS may be damaged</u>.
- During the reprogramming process, you will receive some errors. These errors are expected. Please follow <u>all</u> of the steps in this procedure to successfully complete the reprogramming process.
- 1. Make sure the vehicle is OFF.
- 2. Turn the vehicle IGN ON.
- 3. Confirm there is a blinking green light on the dash.
- 4. Hold the vehicle's start button down for 10 seconds.
 - This will temporarily disable the high voltage (HV) system.
- 5. Confirm that the green light has stopped blinking and is now OFF.
- 6. Turn the vehicle IGN ON (start button to ON).

- 7. Connect the VI3 to the vehicle.
- Turn the hazard lamps to ON. 8.
- 9. Start CONSULT-4 on the CONSULT PC.
- 10. If prompted, select **USA/CANADA Dealers** from the drop-down menu, and then select **OK**.
- 11. Login using your NNAnet credentials.

IMPORTANT: If not prompted to enter your username and password, the CONSULT PC may not be connected to Wi-Fi. Close CONSULT-4, confirm the CONSULT PC is connected to Wi-Fi, and then reopen CONSULT-4.

- 12. Wait for the VI3 to be recognized.
 - Green VI3 symbol with check mark in the middle (Figure 1).
- 13. Ensure that the vehicle's 12 volt battery voltage stays between 12-13.5V (Figure 1).
- 14. Check to see if there are currently any DTCs.
 - DTCs not listed on page 1 are not covered by this bulletin. For unlisted DTCs, see • the ESM for further diagnostic information.

HINT: Having a battery charger ON, with the vehicle ON, may trigger a warning or DTCs which can be ignored (example P0560-22).

15. Select Vehicle reprogramming.

C4	<u>.</u>			S (■ 12.6V =
ය Home	ECU 🕣 System			
Vehicle menu	 No support for All DTC r 	reading. (1)		
Diagnosis menu	(Ø)		V13	Ballery
Home දරා	HVAC		symb	ol voltage
Network diagnosis	 No DTC (33) 			
All self diagnosis result	8 channel controller	(O) ABS	ADAS CONTROL	
Start menu	2	1.00	UNIT 2	rin brio
Quick maintenance		(0)	(0)	(📀)
Change vehicle	VEHICLE SOUND FOR PEDESTRIANS	BCM	Calculator Power Line Communication	CHARGER/POWER DELIVERY MODULE
Fool menu				
Data monitor	Chassis control	C/DC CONVERTER	(C) DRIVER SEAT	(S) Electrically-driven
Replace ECU				intelligent brake unit
Vehicle reprogramming		EPS/Direct adaptive		

Figure 1

16. Scroll down until you see **HV BATTERY** listed (Figure 2).

me 🔅 Vel	hide repro 🗙			3 🖾 💼 12.9
Laser/radar	CFG	4		0
INTELLIGENT KE	Y CFG		BC.R	0
Chassis control	CFG	-	-	0
MOTOR CONTRO	L OBD	291D05MP0B	291D05MP0C	0
HV BATTERY	OBD	293865MR1C	293865MR1E	1
MULTI AV	CFG	-	/	0
Calculator Power I	.ine CFG	17	Green arrow	•
Side radar (Rear le	eft) CFG	-	-	Scroll ba

17. Select the green arrow to the right of **HV BATTERY**, where shown in Figure 2.

Figure 2

18. Select the **X** in the bottom right corner.

GRADE-X Mobile					- 0 X
C4				8 🖾	14.2V
合 Home	🛱 Vehicle repro 🗙				
HV BATTERY					^
O Vehicle inform	ation input for special cases(mounting	vehicle)			
	Please input the specified value of	only in mounting vehicle.			
	ECU	Programming method	Vehicle informaton		
	HV BATTERY	OBD			
	-		Cr.		
					D.
				-	
A This ECU is (either not reprogrammable or not appl	cable.			× (

Figure 3

19. Select Next.

GRADE-X Mobile		6 0	9 xxxxxxx		2 1	- 8 ×
合 Home	🛱 Vehicle repro 🗙					
HV BATTER	Y					~
Vehicle infor	mation input for special cases(mountin	j vehicle)				
	Please input the specified value	only in mounting vehicle	e.			
	ECU	Programming me	ethod	Vehicle informaton		
	HV BATTERY	OBD				
	L			1.		
				\$		Next

Figure 4

20. Select Next again.

GRADE-X Mobile			:0	9 xxxxxxx		****	ð	(2)	12.9	σ×
合 Home	🛱 Vehicle repro 🗙									
HV BATTER	Y									~
Vehicle infor	mation input for special cases(mounting	ig vehicle)								
	In normal operation, please tou	ch "Next" wit	hout input	ing anything in	vehicle infor	mation.				
	ECU	Prog	ramming r	nethod	Vehi	cle informaton				
	High Voltage Battery 2	OBD)							
	1	1						-		
								^	Nov	_
								V	Nex	

Figure 5

21. Verify the vehicle **VIN** is correct, and then select **Next**.

IMPORTANT: If <u>both</u> "HV BATTERY" and "High Voltage Battery 2" are not displayed, an unstable Wi-Fi connection may be present (refer to **IMPORTANT** statement on page 2).

CADE-X Mobile		6	•	0 xx	XXXXX 🚗 VIN XXXX	****	2 🗆	12.90	
ය Home	C Vehicle repro	o ×							
HV BATTERY									*
	Confirm progr	amming data							
	Vehicle name			VIN					
	ARIYA		1	(000)					
	ECU	Programming method	Curren numt	part per	Part number after programming	Programming time (min.)	1		
	HV BATTERY	OBD	2938651	MR1C	293865MR1E	5	*		
	High Voltage Battery 2	OBD	293B35	MR1B	293B35MR1C	5	*		
						100		Next	

Figure 6

22. Wait for all three (3) progress bars to fill to 100%, and then select **Next**.

IMPORTANT: If <u>both</u> "HV BATTERY" and "High Voltage Battery 2" progress bars do not complete, refer to **IMPORTANT** statement on page 2, and then select the **X** next to "Vehicle repro" (Figure 7) and restart the reprogramming at step 15 on page 3.

GRADE-X Mobile		0		9 xxxxxx		ථි	(2)		12.9V	σ×
ය Home	📋 Vehicle repro 🗙									
HV BATTERY										^
Data download										
	HV BATTERY (OBD) - Downloa	iding in prog	gress, pleas	e wait 100%						
	High Voltage Battery 2 (OBD) -	Downloadir	ig in progre	ss, please wait.	100%					
-										
Progress - 100%	-							-		
									Next	

Figure 7

- 23. Verify the vehicle's 12 volt battery voltage is between 12.0V and 13.5V.
 - Adjust the battery charger as needed.
- 24. When 12V, or greater, is displayed in the "Value" field (Figure 8) and the green check mark appears, select **Next**.

HINT: Raise or lower the 12 volt battery's voltage until the check appears.

25. After the required conditions are met, select **Next**.

	U venicie repro X	_			
IV BATTERY					
	The following conditions must	be met in order to pe	erform reprogramming.		Battery
	Condition			Value	voltage
	5	11.5	16	²⁰ 12.96	
	Adjust the battery charger ou 13.5V. The vehicle battery vo	tput so that the vehic ltage is shown on the	le battery voltage is between 12. e top-right of this screen	0V and	

Figure 8

26. When the screen in Figure 9 is displayed, select **Next**.

4			xxxxxxxxxxxxxx 🛆 💷 12.9V
Home	O V	hicle repro X	
V BATTERY			
HV BATTERY	IDZZY1	Normalized temporary capacity	
HV BATTERY	IDZZY0	State Of Charge	
HV BATTERY	IDZZXZ	Temperature	
HV BATTERY	IDZZXY	Impedance Filter coefficients	
HV BATTERY	IDZZXX	Impedance Filter coefficients	
HV BATTERY	IDZZXW	Impedance Filter coefficients	
HV BATTERY	IDZZXV	Cell BSOC estimated - of selected cells	
HV BATTERY	IDZZXU	SOHR R0	
HV BATTERY	IDZZXT	SOHR R1	
HV BATTERY	IDZZXS	SOHR Tau	
HV BATTERY	IDZZXR	Zxx_cell_v_avg_100ms	
			Next

27. Did "Reprogramming error" display (Figure 10)?

YES: Select Yes, and then proceed to step 28.

IMPORTANT: <u>Do not</u> disconnect the VI3 or shut down CONSULT-4 if reprogramming does not complete. If the screen in Figure 10 displays, reprogramming <u>did not</u> complete.

NO: Skip to step 44 on page 16 to continue with reprogramming.

A Home	() ()	~
	Reprogramming error × Error has occurred. Please try again. Error code: R504: Transfer data error: Please try again. Details: Content not found: 293865MR.BCN-ODX-F	

Figure 10

28. Select Yes again.



Figure 11

29. Select Complete.

C4				i .	O xxxxxxx		****	3 💷 i	12.5V 🚍
බ Home	0	Vehicle repro.	×						
HV BATT	ERY				-				~
	Reprogram	nmable EC	υ						-
	ECU	Programmi ng method	ECU saved data	Update status	Previous	Current	Auto configuratio n	Post replacemen t	
	HV BATTERY	OBD	*	×	-		-	×	
	High Voltage Battery 2	OBD	-	-2	-	-		×	
							_		Complete
				_					-

Figure 12

BMS Unit Recovery

Do not disconnect the VI3 or shut down CONSULT-4 if reprogramming does not complete.

- 30. Confirm that the following conditions are met:
 - Check battery voltage (12.0 13.5 V)
 - External Bluetooth[®] devices are OFF
 - All electrical loads are OFF (e.g. A/C, headlamps, audio)
 - CONSULT PC A/C adapter is plugged in
 - Transmission is in Park

31. Allow system to complete self-diagnosis.



Figure 13

32. Select Replace ECU.

C4	· · · · · · · · · · · · · · · · · · ·	C 🖲 🛛 🛛 xx		xxxxx 者 💷 🗎 14.7V	
ය Home					_
	ECU 💮 System			○ 12	^
Vehicle menu	C > ECU not recogni	ized (Blank ECU) (5)			
Diagnosis Imenu Horne (Õ	APPROACHII VEHICLE SOL FOR PEDESTR	NG Calculator Pow IND Communica	ver Line HV BATTERY	(O) METER	
Network diagnosis	(O)				
All self diagnosis result 🔎	incrers.				
Start menu	E Contraction				
Quick maintenance	▲ MAC DTC (1)			,Qa	>
Change vehicle 🗧	ADAS CONTR UNIT 2	ROL			
Data monitor					
Replace ECU	Network commu	inication error (5)	(0)	AC.	>
Vehicle reprogramming	CHARGER/PO	WER EV/HEV	/ HMD	LANE CAMERA	
		Figure 1	4		

33. Select HV BATTERY.

C4		Ú 🙂 🛈	O xxxxxx	xxxxxx 👌 💷	14.7V 🗮
ය Home	🛱 Replace ECU 🗙				
		and a second		Search	~
	EV/HEV Laser/radar 8 channel controller area netw INTELLIGENT KEY Chassis control HV BATTERY METER2 MULTI AV	vork gateway 2		> > > > > > >	
		2. 19			

Figure 15

34. Select Continue.

C4		C	0	O xxxxxxx		xxxx 👌 💷	14.7V 🗮
ය Home	🛱 Replace ECU 🗙						
HV BATTERY							~
Rep	place with new ECU						
After durin	replacing with a new ECU, touch ig the ECU exchange, touch "Later	"Continue" " to close t	to write the	e saved informat write the inform	on to the new ECU. If you w ation later.	ant to do other worl	K
							Continue

Figure 16

35. Select Next.

C4		🗘 🕐 🕐 🗴		a 🖾 🚞 14.7	v 🔳
ය Home	Replace ECU 🗙				
HV BATTER	Y				~
• vesos em	million inplut for special cases(mail	nting Vehiclē)			
	In normal operation, please	touch "Next" without inputting anything in	vehicle information.		
	ECU	Programming method	Vehicle informaton		
	HV BATTERY	OBD			
				Nex	t

Figure 17

36. Select Next again.

C4	-/			a 💷 🗎 14.7V 🚞
ය Home	Replace ECU X			
HV BATTERY				
 Vancte more 	alion input tot special cases (nount	ng vehicle)		
	In normal operation, please to	ich "Next" without inputting anything i	n vehicle information.	
	ECU	Programming method	Vehicle informaton	
	High Voltage Battery 2	OBD		

Figure 18

37. Select **Next** a third time.

C4		U	00	xxxxxxx		****	8 1	14.7V	
ŵ Home	Replace ECL	×							
HV BATTERY									~
	Confirm progr	amming data							
	Vehicle name			VIN					
	ARIYA			JN1AF0B	4PM405891				
	ECU	Programming method	Current pa number	art Pa	t number after rogramming	Programming time (min.)			
	HV BATTERY	OBD	293A0077	6R 2	93865MR1E	5	Ł		
	High Voltage Battery 2	OBD	293A0123	45 2	93B35MR1C	5	*		
								Next	

Figure 19

38. Wait for all three (3) progress bars to fill to 100%, and then select **Next**.

GRADE-X Mobile		100	10.00	10 m	the second second				a x
C4		0	•	9 xxxxxxx		ති	(12)	12.9	
合 Home	🗇 Vehicle repro 🗙								
HV BATTERY									~
Data download									
	HV BATTERY (OBD) - Downloa	ding in prog	jress, pleas	e wait 100%					
	High Voltage Battery 2 (OBD) - 1	Downloadin	a in progre	ss plagsa wait	100%				
	Thigh voltage battery 2 (ODD) - 1	Downloadin	g in progre	ss, please wait.					
1									
Progress - 100%									
								Nex	

Figure 20

- 39. Verify the vehicle's 12 volt battery voltage is between 12.0V and 13.5V.
 - Adjust the battery charger as needed.
- 40. When 12V, or greater, is displayed in the "Value" field (Figure 21) and the green check mark appears, select Next.

HINT: Raise or lower the 12 volt battery's voltage until the check appears.

41. After the required conditions are met, select **Next**.

C4 බ Home	🗇 Vehicle repro 🗙	ā 🛈 🛈	9 xxxxxxx		xxx 👌 🛚	2 i 12.9V
HV BATTERY						^
	The following conditions must b	e met in order to perfo	orm reprogramm	ning.		Battery
	Condition				Value	voltage
	5	11.5	1	6 20	12.96	
	Adjust the battery charger outp 13.5V. The vehicle battery volta	out so that the vehicle age is shown on the to	battery voltage p-right of this s	is between 12.0V and creen		
					_	
						Next

42.	Wait for the In Progress bar to fill to 100%.

GRADE-X Mobile		0	9 xxxxxx	B	(2)	12	- a	×
ය Home	Vehicle repro ×							
HV BATTERY								^
					1º			
					.14			
In Progress	10.%							

Figure 22

43. When the screen in Figure 23 is displayed, select **Next**.

CRADE-X Machales			0	•	9 xxxxxx	xxx 👌	(2)	12.9V	
ය Home	0	Vehicle repro X							
HV BATTERY									^
HV BATTERY	IDZZY1	Normalized tempor	ary capacit	y					
HV BATTERY	IDZZY0	State Of Charge							
HV BATTERY	IDZZXZ	Temperature							
HV BATTERY	IDZZXY	Impedance Filter co	efficients						
HV BATTERY	IDZZXX	Impedance Filter co	efficients						
HV BATTERY	IDZZXW	Impedance Filter co	efficients						
HV BATTERY	IDZZXV	Cell BSOC estimate	ed - of sele	cted cells					
HV BATTERY	IDZZXU	SOHR R0							
HV BATTERY	IDZZXT	SOHR R1							
HV BATTERY	IDZZXS	SOHR Tau							
HV BATTERY	IDZZXR	Zxx_cell_v_avg_10	0ms						-1
									-1
								Next	

44. Wait for the progress bar to fill to 100%.

GRADE-X Mobile				2.0	A Contractor	2.5		1.0	a x
C4		0	0 🕄	O xxxxxxx		ථි		💼 13.2V	=
r Home	🛱 Vehicle repro 🗙								
HV BATTERY									^
ReprogrammingHV I	BATTERY ECU								
							D		
Transfer has been	started LIV								
BATTERY E	CU	-							
								Next	

Figure 24

45. When the screen in Figure 25 is displayed, select **START**.

C4	0		9 xxxxxx	2 (2	13.3	8 ×
☆ Home ♥ Vehicle repro ×						
HV BATTERY						~
1 OTA status reset						
Reprogramming was done, OTA status is reset.						
Current status		Waiting				
		vvaluing		 /_	SIARI	
					Nev	

Figure 25

46. Confirm that **Current status** has changed to "Completed", and then select **Next**.

Home IVehicle repro × HV BATTERY I OTA status reset Reprogramming was done, OTA status is reset. Current status Completed	****	3 (🗳	13	5 ×
HV BATTERY C OTA status reset Current status Completed				
OTA status reset Reprogramming was done, OTA status is reset. Current status Completed				~
Reprogramming was done, OTA status is reset. Current status Completed				
Current status				
Current status				
		1	START	
		-		-
		•		
		\	Nex	

Figure 26

47. Confirm that the IGN SW status is "On" and has a Waiting time of "300" (seconds).HINT: This is equal to 5 minutes.

RATTEDV				
Turn on the high power relay. You need to turn off t	he hazard, set the Shift position to	P, turn off IGN, and w	ait 300 seconds.	
ter following the above instructions, turn off IGN an	d wait until the waiting time is con	nplete.		
uch next to go to next operation.		N.		
3N SW	On	14		
valuing unite	300			
			D	
			D	

Figure 27

- 48. Turn the hazard lamps OFF.
- 49. Confirm that the vehicle is in Park (P), and then turn the vehicle IGN to OFF.
- 50. Verify the **IGN SW** status is now "Off" (Figure 28).
 - Waiting time should now count down automatically. Wait until count reaches "0".

		9 xxxxxx 0		0	(mail)	10.47
Home Vehicle rep	oro X					_
BATTERY						
Turn on the high power relay. You ne	ed to turn off the hazard, set the Shift po	osition to P, turn	off IGN, and wait 300 secon	ds.		
ter following the above instructions, tr	urn off IGN and wait until ໃກe waiting tim	ne is complete.				
ouch "Next" to go to next operation.						
GN SW	Of	f				
Waiting time	27	8				
Naiting time	27	8				
Valting time	27	8				
Waiting time	27	8		Þ		
Walting time	27	8		Þ		
Waiting time	27	8		Þ		
Waiting time	27	8		Þ		

Figure 28

51. When Waiting time reaches "0", select Next.

GADE-X Made	0	:0	9 xxxxxx		2	- 5 ×
ŵ Home □ Vehicle repro ×						
HV BATTERY						~
 Turn on the high power relay. You need to turn off t 	the hazard, se	et the Shif	t position to P, t	urn off IGN, and wait 300 secon	ds.	
1 After following the above instructions, turn off IGN an 2 Touch "Next" to go to next operation.	nd wait until th	ne waiting	time is complet	e.		
IGN SW			Off			
Waiting time			0			
					•	
						↓ Next

52. Turn the vehicle ON, and then select Next.

				~
	b			
		5	b. ■	b ►

Figure 30

53. When the screen in Figure 31 is displayed, select **Next**.

DATTEDV		
DATTERT		
IV BATTERY	IDZZY1	Normalized temporary capacity
HV BATTERY	IDZZY0	State Of Charge
HV BATTERY	IDZZXZ	Temperature
IV BATTERY	IDZZXY	Impedance Filter coefficients
HV BATTERY	IDZZXX	Impedance Filter coefficients
IV BATTERY	IDZZXW	Impedance Filter coefficients
IV BATTERY	IDZZXV	Cell BSOC estimated - of selected cells
IV BATTERY	IDZZXU	SOHR R0
V BATTERY	IDZZXT	SOHR R1
V BATTERY	IDZZXS	SOHR Tau
IV BATTERY	IDZZXR	Zxx_cell_v_avg_100ms

54. When the screen in Figure 32 is displayed, select **Next**.

GRADE-X Mobile	🐻 🕐 🕕 🤗 XXXXXXX 🚑 VIN XXXXXXXXXXXXXXXXX 🗷 📹 13.3V 🚍
습 Home	➡ Vehicle repro ×
HV BATTERY	
 ECU Repair - Exhale 	
	FFFEFFFEFFFEFFFEFFFEFFFEFFFEFFFEFFFEFFFEFFFEFFFDFFFDFFFDFFFDFFFDFFFDFFFDFFFDFFFDFFFDFFFDFFFDFF
	 Impedance Filter coefficients = 1CC91CC91CC91CC91CC91CC91CC91CC91CC91CC
	 Cell BSOC estimated - of selected cells = 02000200020002000200020002000200020002
	• SOHR R0 = 404040404040404040404040404040404040
	• SOHR R1 = 4040404040404040404040404040404040404
	• SOHR Tau = 4040404040404040404040404040404040404
	• Zxx_cell_v_avg_100ms = 106F
	l Next

Figure 32

55. Wait for the progress bar to fill to 100%.

GRADE-X Mobile		1.11	0.00	A Section of the	and the second sec	1			a x
C4		0	0	O xxxxxxx		ති	([]])	13.1 V	
合 Home	💭 Vehicle repro 🗙								
HV BATTERY									~
 ReprogrammingHigh 	Voltage Battery 2 ECU								
					D				
							D		
Checking ECU status Battery 2 E0	.High Voltage								
								Next	

Figure 33

56. When the screen in Figure 34 is displayed, select **START**.

GRADE-X Mobile		-				o x
<u>C4</u>	1.0	•••		3 (2)	13.2	v =
☆ Home ♥ Vehicle repro ×						
HV BATTERY						^
 OTA status reset 						
Reprogramming was done, OTA status is reset.						
Current status		Waiting			START	
Þ						

Figure 34

57. Once **Current status** has changed to "Completed", select **Next**.

24	0	•	O xxxxxxx	වි		1	3.2V	
상 Home 📋 Vehicle repro 🗙		-						
IV BATTERY								-
OTA status reset								
eprogramming was done, OTA status is reset.								
Current status		Complete	ed	-	-	STATT	÷.	
					-		-	
					N	_		
					`		linut	

Figure 35

58. Verify the IGN SW status is "On".

HINT: The vehicle should still be in Park (P) with the hazards OFF.

CG4	0		9 xxxxxxx		xxxx 👌	(21)		13.2V	0
☆ Home ○ Vehicle repro ×									
IV BATTERY									~
Turn on the high power relay. You need to turn off t	the hazard,	set the Shi	ft position to P,	turn off IGN, and wait 300 s	econds.				
After following the above instructions, turn off IGN an	nd wait until	the waiting	time is comple	te.					
Touch Next to go to next operation.									
IGN SW			On						
Waiting time			300						
						b b	2		
							-		

Figure 36

- 59. Turn the vehicle IGN to OFF, and then verify the IGN SW status is now "Off".
 - Waiting time should now count down automatically. Wait until count reaches "0".

set the Shift position to P, turn off IGN, and wa	ait 300 seconds.
the waiting time is complete.	
Off	
268	
t	set the Shift position to P, turn off IGN, and wa the waiting time is complete. Off 268

Figure 37

60. When Waiting time reaches "0", select Next.

 Home Wehicle repro × HV BATTERY Turn on the high power relay. You need to turn off the hazard, set the Shift position to P, turn off IGN, and wait 300 seconds. 1 After following the above instructions, turn off IGN and wait until the waiting time is complete. 2 Touch "Next" to go to next operation. 	^
HV BATTERY Turn on the high power relay. You need to turn off the hazard, set the Shift position to P, turn off IGN, and wait 300 seconds. 1 After following the above instructions, turn off IGN and wait until the waiting time is complete. 2 Touch "Next" to go to next operation.	^
Turn on the high power relay. You need to turn off the hazard, set the Shift position to P, turn off IGN, and wait 300 seconds. After following the above instructions, turn off IGN and wait until the waiting time is complete.	
After following the above instructions, turn off IGN and wait until the waiting time is complete. Touch "Next" to go to next operation.	
Touch "Next" to go to next operation.	
IGN SW Off	7
Waiting time 0	

Figure 38

61. When the screen in Figure 39 is displayed, select **Next**.

		^
		^
		Next

Figure 39

- 62. Verify that **Update status** has "check marks" for the **HV BATTERY** and the **High Voltage Battery 2** (Figure 40).
- 63. Verify that the **Current** part numbers are different than the **Previous** part numbers.
 - If either of the "Current" part numbers have not changed, select **Home**, and then restart the reprogramming procedure from step 15 on page 3.

Reprogram	mmable EC	U					
ECU	Programmi ng method	ECU saved data	Update status	Previous	Current	Auto configuratio n	Post replacemer t
HV BATTERY	OBD	×	-	29386 XXXXX	29386: XXXXX	÷	×
High Voltage Battery 2	OBD		*	293B3 XXXXX	293B3 XXXXX	÷	×

Figure 40

64. Select the drop down menu icon, and then select **Print**.

BATTERY	n						_ \		
								Print	
Re	program	nmable EC	U		_	-		Setting	(
		Programmi	ECU saved	Update		Action	4	Language	
	ECU	ng method	data	status	Previous	Current	conf	Unit	4
н	IV	OBD			20286 VVVVV	20286 VVVVV		Information	
B	ATTERY	000	•	100	29300: ^^^^	29300 *****		Help	1
н	High	OBD			20202 VVVVV			Disconnected mode	
B	lattery 2	OBD		•	29363 XXXXX	29383 XXXXX		Exit	

Attach the printed confirmation to the repair order.
 Drop down

65. Select Complete.

eprogram	mmable EC	:U		_			
ECU	Programmi ng method	ECU saved data	Update status	Previous	Current	Auto configuratio n	Post replacemer t
HV BATTERY	OBD	×	-	293865MR1C	293865MR1E	*	×
High Voltage Battery 2	OBD	(.	*	293B35MR1B	293B35MR1C	÷	×

Figure 42

- 66. Turn the vehicle IGN to OFF.
- 67. Disconnect the VI3 from the vehicle.

IMPORTANT: The remainder of the procedure will not complete if this step is not followed.

- 68. Remove the battery charger from the vehicle's 12 volt battery, and then close the hood.
- 69. Close all doors, and then lock the vehicle with the key fob.
- 70. Wait at least 5 minutes.

IMPORTANT: Do not to disturb the vehicle during this time period to ensure the vehicle goes into sleep mode.

- 71. Turn the vehicle IGN ON and reconnect the VI3 to the vehicle.
- C4 0 3 💽 🛅 13.1V -命 Home ECU (+) System 1^AZ ~ Vehicle menu < Past DTC (1) (0) High Voltage Battery 品 Network diagnosis All self diagnosis result No support for All DTC reading. (1) Start menu (Ø) Quick maintenance B HVAC Example of Past DTCs 3 Change vehicle · No DTC (32) Tool menu 3 Data monitor (C)8 channel controller () () (2) ADAS CONTROL ABS AIR BAG area network gateway UNIT 2 2 Replace ECU . () Calculator Power Line (🕗) APPROACHING VEHICLE SOUND FOR PEDESTRIANS $(\mathbf{ } \mathbf{ })$ Vehicle reprogramming CHARGER/POWER BCM Communication DELIVERY MODULE <u>_</u> **Diagnostic history**
- 72. Confirm if any Past DTCs are present.

- Figure 43
- 73. If a DTC(s) is present, perform "Erase all DTC" as follows:
 - a. Select All self diagnosis result.

¥ (040

C4			🖲 🕕 😔 xxxxxxx		2 🖪	13.4	/ =
合 Home							
					ß	V B	^
Vehicle menu	<	i Reading DTC is in	progress, please	wait			
Diagnosis menu							
Home	(S)					Ca.	
Network diagnosis	品						
All self diagnosis result	t ,928						
Start menu							
Quick maintenance	P						
Change vehicle	8						
Tool menu	-						
Data monitor	1						
Replace ECU							
Vehicle reprogramming	0						

Figure 44

	a		īa 🔍 🕻) Ø×	XXXXXX 🚑 VIN: XXXXXXXXXX	xxxxxxx Z		- 0 13.1V	×
					Search DTC C	R R	>	2	^
Vehicle menu	<	-	ECU 🔫	DTC 🗸	Item name 😽	Category 🗸	Occurrence Er	se DTC	
Diagnosis menu	<u>m</u>	(0)	CHARGER/POWER DELIVERY MODULE	P1C61- 82	Communication error	Message error	2	458.6	٥
Home	<u>छ</u> ि	(@)	CHARGER/POWER DELIVERY MODULE	U2143- 87	CAN communication error (VCM/HCM)	Network	1	458.6	0
All self diagnosis result		(0)	EV/HEV	U2379- 87	CAN comm error (LBC2/VMR)	Network		-	0
Start menu		(@)	EV/HEV	U2344- 87	CAN communication error (LBC/BMS)	Network	-	-	0
Quick maintenance	P	(@)	EV/HEV	P1598- 96	Interlock Sensors	Component	-	-	0
Change vehicle	8	(<u>O</u>)	EV/HEV	P1694- 87	BMS2	Internal		-	Ø
Data monitor	1~	(@)	EV/HEV	P1693- 87	BMS1	Not completed	-		0
Replace ECU		(@)	High Voltage Battery 2	P1BB1- 08	Li-ion battery communication	Message error			٥
Vehicle reprogramming	0								

b. Select the "Erase DTC" icon shown in Figure 45.

Figure 45

GRADE-X M C4 0 13.1V = 合 Home ß V B B ~ Occurrence 🗸 miles 🗸 Vehicle menu < Category 🗸 Erase all DTC Diagnosis menu X (C 458.6 sage error 2 0 ${}^{\odot}$ Home Do you want to erase all DTC from every ECU on the vehicle? 458.6 (0) Network 1 0 品 Network diagnosis (If you erase the DTC of the ECU, the freeze frame data will also be erased. The DTC before erasure can be confirmed in the diagnosis (@ Network -----0 All self diagnosis result history, but the diagnosis history is filtered by the VIN under diagnosis. If you are not diagnosing, please check with the CONSULT viewer.) Start menu (0 Network 0 ------B Quick maintenance (@ Yeş ---Ó mponent ---3 Change vehicle (0) EV/HEV BMS2 o Internal ------Tool menu 87 P1693-2 BMS1 Data monitor (2) EV/HEV 0 Not completed -----87 P1BB1-Li-ion battery communication Replace ECU (0) High Voltage Battery 2 Message error 0 ------08 Vehicle reprogramming Figure 46

c. Select Yes.

- d. Select **Home** and wait for the system diagnosis to complete. Confirm that all DTCs have been erased.
 - Any remaining DTCs, other than those listed on page 1, are not covered by this bulletin. For unlisted DTCs see the ESM for further diagnostic information.

C4	i.d			13.1V	-
	ECU 🕂 System			Q C ↓ ^A Z	^
Vehicle menu	 No support for All DTC r 	eading. (1)			
Diagnosis menu	(Ø)	4			
Home (Õ)	HVAC				
Network diagnosis	 No DTC (33) 				
All self diagnosis result 🔎	^(C) 8 channel controller	()	ADAS CONTROL		
Start menu	area network gateway 2	ABS	UNIT 2	AIR BAG	J.
Quick maintenance 🧳					
Change vehicle	VEHICLE SOUND FOR PEDESTRIANS	BCM	Calculator Power Line Communication	CHARGER/POWER DELIVERY MODULE	
Fool menu					
Data monitor	Chassis control	C/DC CONVERTER	DRIVER SEAT	Electrically-driven	
Replace ECU				intelligent brake Unit	
Vehicle reprogramming	EPS/Direct adaptive			(📀) High Voltage Battery	

- 74. Disconnect the VI3 from the vehicle.
- 75. Confirm that the vehicle is operating correctly.
 - For all other concerns not listed in this bulletin, refer to the ESM for further diagnostic information.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram Battery Management System (BMS)	(1)	JX1RAA	ZE	32	1.1

(1) Reference the electronic parts catalog and use the Battery Controller Assy (293A0-*****) as the Primary Failed Part (**PFP**).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
November 15, 2023	NTB23-075	Original bulletin published