

Model Year 2022 Zero SR/F/S CCM Firmware Update Service Campaign

Purpose

Zero Motorcycles has determined that certain model year 2022 Zero SR, Zero SR/F and Zero SR/S models manufactured before February 2, 2022 have cellular connectivity modules (CCMs) with firmware that cannot be upgraded over-the-air ("OTA"). This firmware also limits the functionality of the Zero Motorcycles' Nextgen mobile application.

In the interest of customer satisfaction, Zero Motorcycles has elected to initiate a voluntary service campaign to remedy this issue. The remedy is to have Zero Motorcycles dealers inspect and update the CCM firmware on affected motorcycles.

Applicable Models

The affected population of 379 motorcycles includes certain model year 2022 Zero SR, Zero SR/F and Zero SR/S motorcycles manufactured between September 13, 2021 and February 2, 2022. The last five digits of the vehicle identification number of affected motorcycles will be 20457 or lower.

Owner Notification

Zero Motorcycles will send a letter to registered owners of affected motorcycles, notifying them of this condition and instructing them to contact their dealer for the associated remedy. Zero will also try to contact these customers via email.

To ensure the highest satisfaction of our riders, it is our mutual responsibility to ensure the CCM firmware update is performed on all affected motorcycles. Therefore, we strongly encourage you reach out to your customers to make sure that they are aware of this program. Don't forget to perform the firmware update on all affected new motorcycles in your inventory prior to delivery to your customers, and we urge you to perform the firmware update on any previously owned motorcycles in your inventory, if any.

If you are aware of any unregistered owners of this affected motorcycle population, please advise us of their names, addresses and VINs, so that we may mail them the owner's letter.

If you are not sure that this CCM firmware update has been performed on a particular motorcycle, please contact Zero Motorcycles Customer Service for verification.

Tools Required

 12-08113 - Diag4Zero Diagnostic Tool – this tool became the required dealer diagnostic tool with the MY22 SR/F/S launch. The Diag4Zero VCI Module and Motorcycle Cable Set are used to check the current CCM firmware version.

ZERO	Dealer Operator/ General Manager	Sales New Vehicles	Sales Used Vehicles	Business Manager (F&I)	Service	Parts & Accessories	Administration
MOTOBCYCLES®	Date:		Source: Zero	Motorcycles (
	July 19, 2022		Service Department				

- 86-08206 CCM Programming Dealer Tool this tool will be shipped to each Zero Motorcycles dealer at no charge before in March [X], 2022. Please contact the Zero Motorcycles Parts and Accessories team if you have not received your dealer tool by April [x], 2022 or need additional information regarding its status.
- Diag4Zero Software Application This application is available for download from the Customer Service Tools Library within the Zero Motorcycles Partner Community. Please contact Zero Motorcycles Customer Service if you need assistance finding this software.
- Starcomm Installer Application and Current Firmware This application and the firmware are available for download from the Customer Service Tools library within the Zero Motorcycles Partner Community. Please contact Zero Motorcycles Customer Service if you need assistance finding this software.

Parts Required

• Qty 2 of p/n 20-04417 - CABLE TIE BLK NYLON 50 LB 10 IN

Procedure

The procedure consists of four primary steps: removing the tank shell, accessing the CCM and physically connecting to the CCM with a programming dongle, updating the firmware, and securing the CCM and reattaching the tank shell. Please note that the procedure below focuses on steps related to accessing the CCM and updating the firmware. The details of tank shell removal and replacement are available in the applicable Zero Motorcycles Service Manual and remain the same from 20MY through the current model year.

Check the current CCM firmware version using Diag4Zero application and the Diag4Zero Dealer Diagnostic Tool using the following steps:

 Navigate to DIAG 02 Troubleshooting – Model Year – Model - Toolbox. Or use Troubleshooting – Automatic Detection.

See the Diag4Zero Dealer Diagnostic Tool User Guide for more information, if needed.



Figure 1, Diag4Zero home page



2. Click on MBB/BMS Interface

Select a function

 Image: Select a function

Figure 2, Selecting MBB/BMS Interface

3. Type in "ccm" and hit the Enter button. The system will respond with the CCM data.



Figure 3, Verifying CCM firmware version

4. If the current firmware version is 2021.7.19, as shown above, then an additional update is not required.

Update the CCM firmware using the following steps:

- 1. Refer to Service Manual to remove Bodywork
 - a. SR/F SR: Tank Removal
 - b. SR/S: <u>Tank Removal</u>, <u>Side Fairing</u> <u>Removal</u>, <u>Headlight Upper Fairing</u> <u>Removal</u>
- 2. Refer to <u>CCM Replacement Instructions</u> to remove the CCM



- Connect the Helios Module on the CCM Programming Harness (Purple box) to the computer via USB and plug in the power supply plug to an outlet. (Blue box in Fig. 1)
- 4. Unplug the CCM from the bike harness and plug in the programming harness to the CCM. (Orange box in Fig. 1)
- 5. Open the Starcom Installer Application. (Fig. 2)
- 6. Click on the "Communications" Tab along the top of the screen. (Fig.3)
- In the 'Communications' window, if you see a 'Ping' message (yellow box in Fig. 4), skip ahead to Step 10. If you do not see this message, click "Advanced." (Fig.4)





Figure 2, Starcom Application Shortcut

🖉 Helios Pro Parameters 🖉 Kylos Connect Parameters 🔢 Firmware Update 🌋 Communication

Figure 3, Communication Menu Option



Figure 4, Communications Popup



8. Click on "Helios 1". (Fig. 5)



Figure 5, Advanced Communication Menu

 Ensure the COM Port is set (use drop down menu to select), Baud Rate is 115200, and make sure the "Activate" Box is checked. (Fig. 6)

10. Once all is set/confirmed, click "Save."

(Fig. 7)



Figure 6, Helios 1 Port Configuration

Communication Window
Configuration Messages
Networks Helios.1
Activate
COM5 ~ 115200 ~
Com Port Baud Rate
Auto Check
√ ICP Test III Open terminal
Save Heload Hestart
Figure 7, Saving Port Configuration



Dealer Operator/ General Manager	Sales New Vehicles	SalesBusinessUsedManagerVehicles(F&I)		Service	Parts & Accessories	Administration
Date: July 19, 2022		Source: Zero Service Depa	Motorcycles rtment			

- 11. On the main application tab, click on "Firmware Update." (Fig. 8)
- Ø Helios Pro Parameters Ø Kylos Connect Parameters E Ermware Update
 K Communications
 Figure 8, Firmware Update Option
- 12. Click "Load" in the new tab to select the firmware file. (Fig. 9)

🛃 Helios Firmware		ĸ				
_default.scf Firmw	are File	ß	Load E E T	lotorola 24pin: 2020.12. nfora 24pin: 2020.12.30 nfora USB: 2020.12.30 elit 24pin: 2020.12.30 1 Plan 24pin: 2020.12.30 1	30 12:22:31 95 kb 12:22:31 91 kb 12:22:31 78 kb 2:22:31 63 kb 12:22:31 63 kb	<
🖰 Add Unit	Unit 390773	Address 0	Status Pending	ETA		
🙀 Delete Unit			5			
🖨 Load Units						
🖺 Save Units						
						_
			<u>P</u> rogram			

Figure 9, Loading CCM Firmware File

 File
 Home
 Share
 View

 ←
 →
 ←
 ▲
 CCM Service Campaign > CCM Firmware
 ✓
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 Name
 Date modified
 Type
 Size

 FIRMWARE_2021.12.13_ZERO
 4/29/2022 3:01 PM
 File Explorer Com....
 76 K8

Figure 10, CCM Firmware File Location

Helios Firmware C:\Users\Productionl Firmw	e (2021.1) Line\Desk vare File	2.13) (top\FIRMWA	Load Qu	Jectel 24pin: 2021.12.	13 14:10:36 74 kb
C Add Unit 옷 Delete Unit Load Units 만찮 Save Units		Address	Status	ETA	
			✓ Program		

Figure 11, Program Button

- Select the firmware file, which is inside the *Firmware* folder inside the Service Campaign folder. The name of the file is 'FIRMWARE_2021.12.13_ZERO.scf.' (Fig. 10)
- 14. Click "Program," and wait for the firmware to upload. (Fig.11)



Dealer Operator/ General Manager	Sales New Vehicles	Sales Used Vehicles	Sales Business Used Manager Vehicles (F&I)		Parts & Accessories	Administration	
Date: Julv 19. 2022		Source: Zero Service Depa	Motorcycles rtment				

15. Once programming is complete, go back to the "Communications" tab and see if you get a 'ping' message as highlighted below. (Fig. 12)

🕗 Communications	- • •											
10:24] FIRMWARE (75648) from 390773 10:24] Ping from 390773 (Helios 0t/24/2021.07.)	19)											
10:24] Response from 390773	10)											
10:24] Scooter 2 from 390773 10:24] 01-00-00-00-00-00-00-00-00-00-00-00-00-0	10:24] Scooter 2 from 390773 10:24] 01-00-00-00-00-00-00-00-00-00-00-00-00 (15): 1											
10:24] Ping from 390773 (Helios Qtl24/2021.07.19)												
de Advanced	Unit Filter:											

Figure 12, Verifying Ping Message

- 16. Refer to <u>CCM Replacement Instructions</u> to reinstall the CCM back into the motorcycle
- 17. Refer to Service Manual to reinstall bodywork
 - a. SR/F SR: Tank Removal
 - b. SR/S: <u>Tank Removal</u>, <u>Side Fairing</u> <u>Removal</u>, <u>Headlight Upper Fairing</u> <u>Removal</u>

Timing and Reimbursement

To receive reimbursement for the work performed under this service campaign, the dealer must submit a Warranty Claim for the replacement costs incurred that includes the following information:

- Fault Summary: MY22 Zero SR/F/S CCM Firmware Update
- Fault Area: 45-CCM (Cellular Connectivity Module)
- Fault Code: 90-Service Bulletin Campaign
- Service Bulletin / Recall: MY22 Zero SR/F/S CCM Firmware Update
- Warranty Claim Type: Service Bulletin/Recall

See example below for full details.

ZEF	SO	Dealer Operator/ General Manager	Sales New Vehicles	Sale Use Veh	es ed icles	Business Manager (F&I)	Service	Parts & Accessories	Administration		
MOTORCY	CLES®	Date: July 19, 202	2	Sou Serv	Source: Zero Motorcycles Customer Service Department						
✓ Description Information											
Fault Summary 🕚	Summary ① Zero Motorcycles has determined that certain model year 2022 Zero SR, Zero SR/F and Zero SR/S models manufactured before February 2, 2022 have cellular connectivity modules (CCMs) with firmware that cannot be upgraded over-the-air ("OTA").					ecall 🛈 🕺 N	lodel Year 2022 ampaign	Zero SR/F/S CCM Firm	nware Update Service		
Fault Area	45-CCM (Cellular Conn	ectivity Module)		N Se	ervice Bulletin / I	Recall 🚯			1		
Fault Code	90-Service Bulletin Carr	ıpaign		Zc Zc	oom Activity #	0			1		
Detailed Description 🕚	 Scription Zero Motorcycles has determined that certain model year 2022 Zero SR, Zero SR/F and Zero SR/S models manufactured before February 2, 2022 have cellular connectivity modules (CCMs) with firmware that cannot be upgraded over-the-air ("OTA"). This firmware also limits the functionality of the Zero Motorcycles' Nextgen mobile application. In the interest of customer satisfaction, Zero Motorcycles has elected to initiate a voluntary service campaign to remedy this issue. The remedy sit to have Zero Motorcycles dealers inspect and update the CCM firmware on affected motorcycles. 				ue DOA 🕦				1		
Resolution (erified by Engine	er 🚺			1		
Accessories 🚯				1							

Zero Motorcycles believes that the time that should be allotted to this work is 45 minutes (0.75 hours) on a Zero SR or Zero SR/F motorcycles and 75 minutes (1.25 hours) on Zero SR/S motorcycles. We do not reimburse any costs related to towing or loaner/temporary replacement motorcycles/vehicles.

Technical Cases for affected motorcycles have been created by Zero Motorcycles. To find the matching case number in the Partner Community select the "Support" tab:

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↑	Leads	Or	ders	COVs	Motor	rcycles	Support	: Wa	rranty K	nowledge	Librarie	s Par	tSmart	Р	arts Orders	My Tra	ining	Marketi	ing
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Case Nu	ımber	~	Vehicle I	dentificat	∨ Cus	stomer	~	Year	~	Model	~	Power Pa	ck	~	Status	~	Last l	Jpdate	~

Click on the "Start New Case" button and enter the last 5 digits of the frame number in the "Enter Vehicle Identification Number" field:

		E			2				Dealer Operator/ General Manager	Sales New Vehicles	Sales Used Vehicl	es	Business Manager (F&I)	Service	Parts & Access	ories	Administration
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You will find the matching case in the Open Service Notification list.